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#6
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Padigaru, et al.
SERIAL NUMBER: 10/023,597 EXAMINER: Not Yet Assigned
FILING DATE: December 18, 2001 ART UNIT: 1645
FOR: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME

August 30, 2002
Boston, Massachusetts

BOX SEQUENCE
Assistant Commissioner For Patents
Washington, D.C. 20231

STATEMENT IN SUPPORT OF COMPUTER READABLE
FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and 1.821(e), respectively, are the same. The sequence listing is supported by the specification and references incorporated therein. Therefore, no new matter is added at this time.

Respectfully submitted,

Dated: August 30, 2002

Melissa Handler
Melissa Handler
c/o MINTZ, LEVIN, COHN, FERRIS,
GLOVSKY and POPEO, P.C.
One Financial Center
Boston, Massachusetts 02111
Tel: (617) 542-6000
Fax: (617) 542-2241



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PATENT TRADEMARK OFFICE

NYC 238195v1



#6

SEQUENCE LISTING

<110> Padigaru, Muralidhara
Kekuda, Ramesh
Li, Li
Ballinger, Robert A.
Casman, Stacie J.
Spytek, Kimberly A.
Baumgartner, Jason C.
Burgess, Catherine E.

<120> Novel Proteins and Nucleic Acids Encoding Same

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<140> 10/023,597

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<151> 2001-01-04

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 Arg Met Leu Ala Asp Leu Leu Ser Thr His His Ser Ile Thr Phe Val
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 Ala Cys Ala Asn Gln Met Phe Phe Ser Phe Met Phe Gly Phe Thr His
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 Asp Ala Leu Met Ala Thr Thr Tyr Thr Val Phe Thr Pro Phe Leu Ser
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Gly Cys Gly Ile Gln Ile Gly Leu Phe Val Cys Leu Val Gly Ser Glu
 100 105 110

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 Ile Lys Thr Glu Pro Ser Leu His Glu Pro Met Tyr Tyr Phe Leu Ala
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Asn Thr Thr Leu Leu Ile Thr Ile Gln Leu Glu Ala Ser Leu His Gln
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Pro Leu Tyr Tyr Leu Leu Ser Leu Leu Ser Leu Leu Asp Ile Val Leu
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Cys Leu Thr Val Ile Pro Lys Val Leu Ala Ile Phe Trp Tyr Asp Leu
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Arg Ser Ile Ser Phe Pro Ala Cys Phe Leu Gln Met Phe Ile Met Asn
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 145 150 155 160
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 165 170 175
 Gly Glu Asn Val Ile Glu Asn Cys Ile Cys Ala Asn Leu Ser Val Ser
 180 185 190
 Arg Leu Ser Cys Asp Asn Phe Thr Leu Asn Arg Ile Tyr Gln Phe Val
 195 200 205
 Ala Gly Trp Thr Leu Leu Gly Ser Asp Leu Phe Leu Ile Phe Leu Ser
 210 215 220
 Tyr Thr Phe Ile Leu Arg Ala Val Leu Arg Phe Lys Ala Glu Gly Ala
 225 230 235 240
 Ala Val Lys Ala Leu Ser Thr Cys Gly Ser His Phe Ile Leu Ile Leu
 245 250 255
 Phe Phe Ser Thr Ile Leu Leu Val Val Val Leu Thr Asn Val Ala Arg
 260 265 270
 Lys Lys Val Pro Met Asp Ile Leu Ile Leu Leu Asn Val Leu His His
 275 280 285
 Leu Ile Pro Pro Ala Leu Asn Pro Ile Val Tyr Gly Val Arg Thr Lys
 290 295 300
 Glu Ile Lys Gln Gly Ile Gln Lys Leu Leu Gln Arg Gly Arg
 305 310 315

<210> 13

<211> 947

<212> DNA

<213> Homo sapiens

<400> 13

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cctcattgtg gtgctgggtct ccaactgatgc tgccctccag tcccctatgt acttcttct 180
gcgcacccctc tcggccttgg agattggcta tacgtctgtc acggtccccc tgctacttca 240
ccacctcctt actggccggc gccacatctc tcgctctgga tgtgctctcc agatgttctt 300
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agccctcctc atcctctgcc cctttggcct catcctggg tcctacgggc gtatcctcgt 660
taccatcttc cggatcccat ctggtgcggg ccgccgcaag gccttctcca cctgctcctc 720
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catcctcaac cccatcatct acagcctgcg gaacacagag gtcaaagctg ccctaaagag 900
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<210> 14

<211> 306

<212> PRT

<213> Homo sapiens

<400> 14

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Met Val Thr Glu Phe Leu Leu Leu Gly Phe Ser His Leu Ala Asp Leu
  1              5              10              15

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Gln Gly Leu Leu Phe Ser Val Phe Leu Thr Ile Tyr Leu Leu Thr Val
      20              25              30

```

```

Ala Gly Asn Phe Leu Ile Val Val Leu Val Ser Thr Asp Ala Ala Leu
    35              40              45

```

```

Gln Ser Pro Met Tyr Phe Phe Leu Arg Thr Leu Ser Ala Leu Glu Ile
    50              55              60

```

```

Gly Tyr Thr Ser Val Thr Val Pro Leu Leu Leu His His Leu Leu Thr
    65              70              75              80

```

```

Gly Arg Arg His Ile Ser Arg Ser Gly Cys Ala Leu Gln Met Phe Phe
      85              90              95

```

```

Phe Leu Phe Phe Gly Ala Thr Glu Cys Cys Leu Leu Ala Ala Met Ala
    100              105              110

```

```

Tyr Asp Arg Tyr Ala Ala Ile Cys Glu Pro Leu Arg Tyr Pro Leu Leu
    115              120              125

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```

Leu Ser His Arg Val Cys Leu Gln Leu Ala Gly Ser Ala Trp Ala Cys
    130              135              140

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Gly Val Leu Val Gly Leu Gly His Thr Pro Phe Ile Phe Ser Leu Pro
 145 150 155 160

Phe Cys Gly Pro Asn Thr Ile Pro Gln Phe Phe Cys Glu Ile Gln Pro
 165 170 175

Val Leu Gln Leu Val Cys Gly Asp Thr Ser Leu Asn Glu Leu Gln Ile
 180 185 190

Ile Leu Ala Thr Ala Leu Leu Ile Leu Cys Pro Phe Gly Leu Ile Leu
 195 200 205

Gly Ser Tyr Gly Arg Ile Leu Val Thr Ile Phe Arg Ile Pro Ser Val
 210 215 220

Ala Gly Arg Arg Lys Ala Phe Ser Thr Cys Ser Ser His Leu Ile Val
 225 230 235 240

Val Ser Leu Phe Tyr Gly Thr Ala Leu Phe Ile Tyr Ile Arg Pro Lys
 245 250 255

Ala Ser Tyr Asp Pro Ala Thr Asp Pro Leu Val Ser Leu Phe Tyr Ala
 260 265 270

Val Val Thr Pro Ile Leu Asn Pro Ile Ile Tyr Ser Leu Arg Asn Thr
 275 280 285

Glu Val Lys Ala Ala Leu Lys Arg Thr Ile Gln Lys Thr Val Pro Met
 290 295 300

Glu Ile
 305

<210> 15

<211> 966

<212> DNA

<213> Homo sapiens

<400> 15

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 aatatcggca tgatggtggt aatcaaggtc agtcctcagc ttaacaaccc catgtacttt 180
 ttccctcagtc acttgatcatt tgttgatgtg tggttttctt ccaatgtcac ccctaaaatg 240
 ttggaaaacc tggtatcaga taaaaaaca attacttatg ctggttggtt agtacagtgt 300
 ttcttcttca ttgctcttgt ccatgtggaa atttttattc ttgctgcgat ggcctttgat 360
 agatacatgg caattgggaa tcctctgctt tatggcagta aaatgtcaag gggtgtctgt 420

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attcgactga ttactttccc ttacatttat ggttttctga cgagtctggc agcaacatta 480
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ccacctctca tcaaaatggc ctgtgctggg acctttgtaa aagaatatac aatgatcata 600
cttgccggca ttaacttcac atattccctg actgtaatta tcatctctta cttattcatc 660
ctcattgcca ttctgcgaat gcgctcagca gaaggaaggc agaaggcctt ttccacatgt 720
gggtcccatc tgacagctgt cattatatc tatggtactc tgatcttcat gtatctcaga 780
cgtcccacag aggagtctgt ggagcagggg aagatggtgg ctgtgttcta taccacagtg 840
atccccatgt tgaatcccat gatctacagt ctgaggaaca aggatgtgaa aaaggccatg 900
atgaaagtga tcagcagatc atgttaaaca aaataaaatc aaatttgatt taattttatc 960
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<210> 16

<211> 307

<212> PRT

<213> Homo sapiens

<400> 16

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Met Leu Asn Phe Thr Asp Val Thr Glu Phe Ile Leu Leu Gly Leu Thr
  1                      5                      10                      15

```

```

Ser Arg Arg Glu Trp Gln Val Leu Phe Phe Ile Ile Phe Leu Val Val
          20                      25                      30

```

```

Tyr Ile Ile Thr Met Val Gly Asn Ile Gly Met Met Val Leu Ile Lys
    35                      40                      45

```

```

Val Ser Pro Gln Leu Asn Asn Pro Met Tyr Phe Phe Leu Ser His Leu
    50                      55                      60

```

```

Ser Phe Val Asp Val Trp Phe Ser Ser Asn Val Thr Pro Lys Met Leu
    65                      70                      75                      80

```

```

Glu Asn Leu Leu Ser Asp Lys Lys Thr Ile Thr Tyr Ala Gly Cys Leu
          85                      90                      95

```

```

Val Gln Cys Phe Phe Phe Ile Ala Leu Val His Val Glu Ile Phe Ile
    100                      105                      110

```

```

Leu Ala Ala Met Ala Phe Asp Arg Tyr Met Ala Ile Gly Asn Pro Leu
    115                      120                      125

```

```

Leu Tyr Gly Ser Lys Met Ser Arg Val Val Cys Ile Arg Leu Ile Thr
    130                      135                      140

```

```

Phe Pro Tyr Ile Tyr Gly Phe Leu Thr Ser Leu Ala Ala Thr Leu Trp
    145                      150                      155                      160

```

Thr Tyr Gly Leu Tyr Phe Cys Gly Lys Ile Glu Ile Asn His Phe Tyr
165 170 175

Cys Ala Asp Pro Pro Leu Ile Lys Met Ala Cys Ala Gly Thr Phe Val
180 185 190

Lys Glu Tyr Thr Met Ile Ile Leu Ala Gly Ile Asn Phe Thr Tyr Ser
195 200 205

Leu Thr Val Ile Ile Ile Ser Tyr Leu Phe Ile Leu Ile Ala Ile Leu
210 215 220

Arg Met Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Ser Thr Cys Gly
225 230 235 240

Ser His Leu Thr Ala Val Ile Ile Phe Tyr Gly Thr Leu Ile Phe Met
245 250 255

Tyr Leu Arg Arg Pro Thr Glu Glu Ser Val Glu Gln Gly Lys Met Val
260 265 270

Ala Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Met Ile Tyr
275 280 285

Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Met Met Lys Val Ile Ser
290 295 300

Arg Ser Cys
305

<210> 17

<211> 966

<212> DNA

<213> Homo sapiens

<400> 17

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aatatcggca tgatggtgtt aatcaaggct agtcctcagc ttaacaaccc catgtacttt 180
ttcctcagtc acttgtcatt tgttgatgtg tggttttctt ccaatgtcac ccctaaaatg 240
ttggaaaacc tgttatcaga taaaaaaaca attacttatg ctggttggtt agtacagtgt 300
ttcttcttca ttgctcttgt ccatgtggaa atttttattc ttgctgcat ggcctttgat 360
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attcgactga ttactttccc ttacatttat ggttttctga cgagtctggc agcaacatta 480
tggaacttac gcttgactt ctgtggaaaa attgagatca accatttcta ctgtgcagat 540
ccacctctca tcaaatggc ctgtgctggg acctttgtaa aagaatatac aatgatcata 600
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ctcattgccca ttctgcgaat gcgctcagca gaaggaaggc agaaggcctt ttccacatgt 720
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cgtcccacag aggagtctgt ggagcagggg aagatggtgg ctgtgttcta taccacagtg 840
atcccatgt tgaatcccat gatctacagt ctgaggaaca aggatgtgaa aaaggccatg 900
atgaaagtga tcagcagatc atgttaaaca aaataaaatc aaatttgatt taattttatc 960
ttctat

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<210> 18
<211> 307
<212> PRT
<213> Homo sapiens

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<400> 18
Met Leu Asn Phe Thr Asp Val Thr Glu Phe Ile Leu Leu Gly Leu Thr
  1                      5                      10                     15

Ser Arg Arg Glu Trp Gln Val Leu Phe Phe Ile Ile Phe Leu Val Val
                20                      25                     30

Tyr Ile Ile Thr Met Val Gly Asn Ile Gly Met Met Val Leu Ile Lys
    35                      40                     45

Val Ser Pro Gln Leu Asn Asn Pro Met Tyr Phe Phe Leu Ser His Leu
    50                      55                     60

Ser Phe Val Asp Val Trp Phe Ser Ser Asn Val Thr Pro Lys Met Leu
    65                      70                     75                     80

Glu Asn Leu Leu Ser Asp Lys Lys Thr Ile Thr Tyr Ala Gly Cys Leu
                85                      90                     95

Val Gln Cys Phe Phe Phe Ile Ala Leu Val His Val Glu Ile Phe Ile
    100                      105                     110

Leu Ala Ala Met Ala Phe Asp Arg Tyr Met Ala Ile Gly Asn Pro Leu
    115                      120                     125

Leu Tyr Gly Ser Lys Met Ser Arg Val Val Cys Ile Arg Leu Ile Thr
    130                      135                     140

Phe Pro Tyr Ile Tyr Gly Phe Leu Thr Ser Leu Ala Ala Thr Leu Trp
    145                      150                     155                     160

Thr Tyr Gly Leu Tyr Phe Cys Gly Lys Ile Glu Ile Asn His Phe Tyr
                165                      170                     175

Cys Ala Asp Pro Pro Leu Ile Lys Met Ala Cys Ala Gly Thr Phe Val

```

180 185 190
 Lys Glu Tyr Thr Met Ile Ile Leu Ala Gly Ile Asn Phe Thr Tyr Ser
 195 200 205
 Leu Thr Val Ile Ile Ile Ser Tyr Leu Phe Ile Leu Ile Ala Ile Leu
 210 215 220
 Arg Met Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Ser Thr Cys Gly
 225 230 235 240
 Ser His Leu Thr Ala Val Ile Ile Phe Tyr Gly Thr Leu Ile Phe Met
 245 250 255
 Tyr Leu Arg Arg Pro Thr Glu Glu Ser Val Glu Gln Gly Lys Met Val
 260 265 270
 Ala Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Met Ile Tyr
 275 280 285
 Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Met Met Lys Val Ile Ser
 290 295 300
 Arg Ser Cys
 305

<210> 19
 <211> 946
 <212> DNA
 <213> Homo sapiens

<400> 19
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 ttgtcaggaa acatgacctt ggttatctta atccgaactg attcccactt gcatacacct 180
 atgtactttt tcattggcaa tctgtctttt ttggatttct ggtataacct tgtgtataacc 240
 cccaaaatcc tggccagttg tgtctcagaa gataagcgca tttccttggc tggatgtggg 300
 gctcagctgt ttttttcctg tgtttagacc tacactgaat gctatctoct ggcagccatg 360
 gcatatgacc gccatgcagc aatttgtaac ccattgcttt attcaggtac catgtccacc 420
 gccctctgta ctgggcttgt tgetggctcc tacataggag gatttttgaa tgccatagcc 480
 catactgcc aatactccg cctgcatttt tgtggtaaaa atatcattga ccactttttc 540
 tgtgatgcac caccgttggg aaaaatgtcc tgtacagaca ccagggtcta cgaaaaagtc 600
 ctgcttggtg tgggtggctt cacagtactc tccagcattc ttgctatcct gatttcctat 660
 gtcaacatcc tcttggtat cctgagaatc cactcagctt caggaagaca caaggcattc 720
 tccacctgtg ctcccccact catctcagtc atgctcttct atggatcatt gttgtttatg 780
 tattcaaggc ctagtccac ctactcccta gagagggaca aagtagctgc tctgttctac 840
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946

<210> 20

<211> 312

<212> PRT

<213> Homo sapiens

<400> 20

Met Glu Val Gly Asn Cys Thr Ile Leu Thr Glu Phe Ile Leu Leu Gly
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Phe Ser Ala Asp Ser Gln Trp Gln Pro Ile Leu Phe Gly Val Phe Leu
20 25 30

Met Leu Tyr Leu Ile Thr Leu Ser Gly Asn Met Thr Leu Val Ile Leu
35 40 45

Ile Arg Thr Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Ile Gly
50 55 60

Asn Leu Ser Phe Leu Asp Phe Trp Tyr Thr Ser Val Tyr Thr Pro Lys
65 70 75 80

Ile Leu Ala Ser Cys Val Ser Glu Asp Lys Arg Ile Ser Leu Ala Gly
85 90 95

Cys Gly Ala Gln Leu Phe Phe Ser Cys Val Val Ala Tyr Thr Glu Cys
100 105 110

Tyr Leu Leu Ala Ala Met Ala Tyr Asp Arg His Ala Ala Ile Cys Asn
115 120 125

Pro Leu Leu Tyr Ser Gly Thr Met Ser Thr Ala Leu Cys Thr Gly Leu
130 135 140

Val Ala Gly Ser Tyr Ile Gly Gly Phe Leu Asn Ala Ile Ala His Thr
145 150 155 160

Ala Asn Thr Phe Arg Leu His Phe Cys Gly Lys Asn Ile Ile Asp His
165 170 175

Phe Phe Cys Asp Ala Pro Pro Leu Val Lys Met Ser Cys Thr Asp Thr
180 185 190

Arg Val Tyr Glu Lys Val Leu Leu Gly Val Val Gly Phe Thr Val Leu
195 200 205

Ser Ser Ile Leu Ala Ile Leu Ile Ser Tyr Val Asn Ile Leu Leu Ala
 210 215 220

Ile Leu Arg Ile His Ser Ala Ser Gly Arg His Lys Ala Phe Ser Thr
 225 230 235 240

Cys Ala Ser His Leu Ile Ser Val Met Leu Phe Tyr Gly Ser Leu Leu
 245 250 255

Phe Met Tyr Ser Arg Pro Ser Ser Thr Tyr Ser Leu Glu Arg Asp Lys
 260 265 270

Val Ala Ala Leu Phe Tyr Thr Val Ile Asn Pro Leu Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Ile Lys Glu Ala Phe Arg Lys Ala
 290 295 300

Thr Gln Thr Ile Gln Pro Gln Thr
 305 310

<210> 21

<211> 927

<212> DNA

<213> Homo sapiens

<400> 21

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gatccatgtg agtgccaccc tgcacacacc catgtactcc ctctgaaga gcctctcctt 180
cttggaatttc tgctactcct ccacggttgt gccccagacc ctggtgaact tcttggccaa 240
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gacccaggac cgcacagttg ctgtcatcta cacagtgggtg atcccagtg tgaacccctt 840
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<210> 22

<211> 303

<212> PRT

<213> Homo sapiens

<400> 22

Gly Met Glu Phe Glu Leu Leu Gly Leu Thr Thr Asp Pro Gln Leu Gln
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Arg Leu Leu Phe Val Val Phe Leu Gly Met Tyr Thr Ala Thr Leu Leu
20 25 30

Gly Asn Leu Val Met Phe Leu Leu Ile His Val Ser Ala Thr Leu His
35 40 45

Thr Pro Met Tyr Ser Leu Leu Lys Ser Leu Ser Phe Leu Asp Phe Cys
50 55 60

Tyr Ser Ser Thr Val Val Pro Gln Thr Leu Val Asn Phe Leu Ala Lys
65 70 75 80

Arg Lys Val Ile Ser Tyr Phe Gly Cys Met Thr Gln Met Phe Phe Tyr
85 90 95

Ala Gly Phe Ala Thr Ser Glu Cys Tyr Leu Ile Ala Ala Met Ala Tyr
100 105 110

Asp Arg Tyr Ala Ala Ile Cys Asn Pro Leu Leu Tyr Ser Thr Ile Met
115 120 125

Ser Pro Glu Val Cys Ala Ser Leu Ile Val Gly Ser Tyr Ser Ala Gly
130 135 140

Phe Leu Asn Ser Leu Ile His Thr Gly Cys Ile Phe Ser Leu Lys Phe
145 150 155 160

Cys Gly Ala His Val Val Thr His Phe Phe Cys Asp Gly Pro Pro Ile
165 170 175

Leu Ser Leu Ser Cys Val Asp Thr Ser Leu Cys Glu Ile Leu Leu Phe
180 185 190

Ile Phe Ala Gly Phe Asn Leu Leu Ser Cys Thr Leu Thr Ile Leu Ile
195 200 205

Ser Tyr Phe Leu Ile Leu Asn Thr Ile Leu Lys Met Ser Ser Ala Gln
210 215 220

Gly Arg Phe Lys Ala Phe Ser Thr Cys Ala Ser His Leu Thr Ala Val
225 230 235 240

Leu Ile His Gln Pro Gly Leu Gln Val Pro Val Phe Phe Leu Phe Leu
 20 25 30
 Gly Phe Tyr Ala Val Thr Val Val Gly Asn Leu Gly Leu Ile Ile Leu
 35 40 45
 Ile Gly Leu Asn Ser Arg Leu His Ile Pro Met Tyr Phe Phe Pro Phe
 50 55 60
 Asn Leu Ser Leu Val Asp Phe Ser Phe Ser Thr Thr Ile Ile Pro Lys
 65 70 75 80
 Met Leu Met Ser Phe Val Ser Arg Lys Asn Ile Ile Ser Phe Thr Gly
 85 90 95
 Cys Met Ser Gln Phe Phe Phe Phe Cys Phe Phe Val Phe Ser Glu Ser
 100 105 110
 Phe Ile Leu Ser Ala Met Val Glu Asp Arg Tyr Val Gly Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Thr Ile Thr Met Ser Pro Gln Val Cys Leu Leu Leu
 130 135 140
 Leu Leu Gly Val Tyr Gly Met Gly Val Phe Gly Ala Val Ala His Thr
 145 150 155 160
 Gly Asn Ile Val Phe Leu Thr Phe Cys Ala Asp Asn Leu Val Asn His
 165 170 175
 Tyr Met Cys Asp Ile Leu Pro Leu Leu Glu Leu Ser Cys Asn Gly Ser
 180 185 190
 Tyr Ile Asn Val Leu Val Ile Phe Ile Val Val Thr Val Gly Ile Gly
 195 200 205
 Val Pro Ile Val Ala Val Phe Ile Ser Tyr Gly Phe Ile Leu Ser Ser
 210 215 220
 Ile Leu Arg Val Ser Ser Ala Glu Gly Arg Ser Lys Ala Phe Ser Ser
 225 230 235 240
 Cys Ser Ser Tyr Ile Ile Ala Val Ser Leu Phe Phe Gly Ser Gly Ala
 245 250 255
 Phe Thr Tyr Leu Lys Pro Pro Ser Ile Leu Pro Leu Asp Gln Gly Lys
 260 265 270

Val Ser Ser Leu Phe Tyr Thr Thr Val Val Pro Met Phe Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Leu Ala Leu Lys Arg Thr
 290 295 300

Phe Ser Arg Ile Ser Phe Ser
 305 310

<210> 25
 <211> 986
 <212> DNA
 <213> Homo sapiens

<400> 25
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 ggccactctc acagtgatgt cttatgatcg ctatgtggcc atctgcctcc cactgcacta 420
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 aattattcac cagttcttct gtgatatccc gcaattgctc aagctctcct gctctaata 600
 ttactttgga gtactggaag tgtctacttt catgtctgta atggcctttg cctgctttgt 660
 ggggattgcc ttctcctatg gccagatatt ctctacagtt ctcaggatgc cctctgctga 720
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 ctcaacaggc atttgtgcct atctaaagcc aacctcagac tcaccaactg ctttagacct 840
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<210> 26
 <211> 319
 <212> PRT
 <213> Homo sapiens

<400> 26
 Met Thr Ala Arg Asn Met Thr Thr Met Ser Gly Phe Leu Leu Met Gly
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Phe Ser Asp Asn His Glu Leu Gln Ile Leu Gln Ala Leu Leu Phe Leu
 20 25 30

Leu Thr Tyr Leu Leu Gly Ser Ala Gly Asn Phe Ile Ile Ile Thr Ile

290

295

300

Leu Leu Ser Glu Glu Phe Ile Arg Lys Lys Cys Leu Phe Tyr Phe
 305 310 315

<210> 27

<211> 986

<212> DNA

<213> Homo sapiens

<400> 27

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cccacagctc cagtctccaa tgtattattt tctgaagcaa ctttccactc tggacctctc 240
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ctcaacaggc atttgtgcct atctaaagcc aacctcagac tcaccaactg ctttagacct 840
catgctctct atcttttaca cactactacc cccaacctc aacctgtta tctatagtct 900
gagaaatgag tccttgaaaa gagcactaaa gaagttactg ctaagtgaag aattcattag 960
gaaaaaatgt ttgttctatt tttagt 986

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<210> 28

<211> 319

<212> PRT

<213> Homo sapiens

<400> 28

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Met Thr Ala Arg Asn Met Thr Thr Met Ser Gly Phe Leu Leu Met Gly
  1           5           10          15

Phe Ser Asp Asn His Glu Leu Gln Ile Leu Gln Ala Leu Leu Phe Leu
      20           25           30

Leu Thr Tyr Leu Leu Gly Ser Ala Gly Asn Phe Ile Ile Ile Thr Ile
      35           40           45

Thr Thr Leu Asp Pro Gln Leu Gln Ser Pro Met Tyr Tyr Phe Leu Lys
      50           55           60

```


Gln	Leu	Ser	Thr	Leu	Asp	Leu	Ser	Ser	Leu	Ser	Val	Thr	Val	Pro	Gln	65	70	75	80
Tyr	Val	Ala	Ser	Ser	Leu	Ala	Arg	Ser	Gly	Tyr	Ile	Ser	Tyr	Gly	Gln	85	90	95	
Cys	Met	Leu	Gln	Ile	Phe	Phe	Phe	Thr	Gly	Leu	Ala	Trp	Ser	Glu	Met	100	105	110	
Ala	Thr	Leu	Thr	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Leu	115	120	125	
Pro	Leu	His	Tyr	Glu	Val	Ile	Met	Ser	Pro	Arg	Lys	Cys	Thr	Trp	Ala	130	135	140	
Val	Ala	Ala	Val	Trp	Leu	Ser	Gly	Gly	Ile	Ser	Gly	Thr	Leu	Phe	Thr	145	150	155	160
Ala	Ser	Thr	Leu	Ser	Ile	Arg	Phe	Cys	Gly	Asp	Lys	Ile	Ile	His	Gln	165	170	175	
Phe	Phe	Cys	Asp	Ile	Pro	Gln	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asn	Asp	180	185	190	
Tyr	Phe	Gly	Val	Leu	Glu	Val	Ser	Thr	Phe	Met	Ser	Val	Met	Ala	Phe	195	200	205	
Ala	Cys	Phe	Val	Gly	Ile	Ala	Phe	Ser	Tyr	Gly	Gln	Ile	Phe	Ser	Thr	210	215	220	
Val	Leu	Arg	Met	Pro	Ser	Ala	Glu	Gly	Arg	Ser	Lys	Val	Phe	Ser	Thr	225	230	235	240
Cys	Leu	Pro	His	Leu	Phe	Val	Val	Ser	Phe	Phe	Leu	Ser	Thr	Gly	Ile	245	250	255	
Cys	Ala	Tyr	Leu	Lys	Pro	Thr	Ser	Asp	Ser	Pro	Thr	Ala	Leu	Asp	Leu	260	265	270	
Met	Leu	Ser	Ile	Phe	Tyr	Thr	Leu	Leu	Pro	Pro	Thr	Leu	Asn	Pro	Val	275	280	285	
Ile	Tyr	Ser	Leu	Arg	Asn	Glu	Ser	Leu	Lys	Arg	Ala	Leu	Lys	Lys	Leu	290	295	300	
Leu	Leu	Ser	Glu	Glu	Phe	Ile	Arg	Lys	Lys	Cys	Leu	Phe	Tyr	Phe		305	310	315	

<210> 29
 <211> 918
 <212> DNA
 <213> Homo sapiens

<400> 29
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 taggaaatat tggaatgata ttactcatca agaccgattc cagacttcaa acacccatgt 180
 acttttttcc acaacatttg gcttttggtg atatctgtta tacttctgct atcactccca 240
 agatgctcca aagcttcaca gaagaaaata atttgataac atttcggggc tgtgtgatac 300
 aattcttagt ttatgcaaca tttgcaacca gtgactgtta cctcctagct attatggcaa 360
 tggattgtta tgttgccatc tgtaagcccc ttcgctatcc catgatcatg tcccaaacag 420
 tctacatcca actcgtagct ggctcatata ttataggctc aataaatgcc tctgtacata 480
 cagggtttac attttcactg tccttctgca agtctaataa aatcaatcac tttttctgtg 540
 atggtctccc aattcttgcc ctttcatgct ccaacattga catcaacatc attctagatg 600
 ttgtctttgt gggatttgac ttgatgttca ctgagttggt catcatcttt tcctacatct 660
 acattatggt caccatcctg aagatgtctt ctactgctgg gaggaaaaaa tccttctcca 720
 catgtgcttc ccacctgaca gcagtaacca ttttctatgg gacactctct tacatgtact 780
 tacagcctca gtctaataat tctcaggaga atatgaaagt agcctctata ttttatggca 840
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 ctttaaaaga gatgcgag 918

<210> 30
 <211> 298
 <212> PRT
 <213> Homo sapiens

<400> 30
 Met Gly Arg Gly Asn Ser Thr Glu Val Thr Glu Phe His Leu Leu Gly
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 Phe Gly Val Gln His Glu Phe Gln His Val Leu Phe Ile Val Leu Leu
 20 25 30
 Leu Ile Tyr Val Thr Ser Leu Ile Gly Asn Ile Gly Met Ile Leu Leu
 35 40 45
 Ile Lys Thr Asp Ser Arg Leu Gln Thr Pro Met Tyr Phe Phe Pro Gln
 50 55 60
 His Leu Ala Phe Val Asp Ile Cys Tyr Thr Ser Ala Ile Thr Pro Lys
 65 70 75 80
 Met Leu Gln Ser Phe Thr Glu Glu Asn Asn Leu Ile Thr Phe Arg Gly

85										90					95				
Cys	Val	Ile	Gln	Phe	Leu	Val	Tyr	Ala	Thr	Phe	Ala	Thr	Ser	Asp	Cys				
			100						105					110					
Tyr	Leu	Leu	Ala	Ile	Met	Ala	Met	Asp	Cys	Tyr	Val	Ala	Ile	Cys	Lys				
			115					120					125						
Pro	Leu	Arg	Tyr	Pro	Met	Ile	Met	Ser	Gln	Thr	Val	Tyr	Ile	Gln	Leu				
			130					135					140						
Val	Ala	Gly	Ser	Tyr	Ile	Ile	Gly	Ser	Ile	Asn	Ala	Ser	Val	His	Thr				
			145				150			155					160				
Gly	Phe	Thr	Phe	Ser	Leu	Ser	Phe	Cys	Lys	Ser	Asn	Lys	Ile	Asn	His				
				165					170					175					
Phe	Phe	Cys	Asp	Gly	Leu	Pro	Ile	Leu	Ala	Leu	Ser	Cys	Ser	Asn	Ile				
			180						185					190					
Asp	Ile	Asn	Ile	Ile	Leu	Asp	Val	Val	Phe	Val	Gly	Phe	Asp	Leu	Met				
		195					200					205							
Phe	Thr	Glu	Leu	Val	Ile	Ile	Phe	Ser	Tyr	Ile	Tyr	Ile	Met	Val	Thr				
		210					215					220							
Ile	Leu	Lys	Met	Ser	Ser	Thr	Ala	Gly	Arg	Lys	Lys	Ser	Phe	Ser	Thr				
		225				230				235					240				
Cys	Ala	Ser	His	Leu	Thr	Ala	Val	Thr	Ile	Phe	Tyr	Gly	Thr	Leu	Ser				
			245						250					255					
Tyr	Met	Tyr	Leu	Gln	Pro	Gln	Ser	Asn	Asn	Ser	Gln	Glu	Asn	Met	Lys				
			260					265					270						
Val	Ala	Ser	Ile	Phe	Tyr	Gly	Thr	Val	Ile	Pro	Met	Leu	Asn	Pro	Leu				
			275					280					285						
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Glu	Gly	Lys										
		290				295													

<210> 31
 <211> 920
 <212> DNA
 <213> Homo sapiens

<400> 31

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gataggaaat attggaatga tcttactcat caagaccgat tccagacttc aaacacccat 180
gtactttttt ccacaacatt tggcttttgt tgatatctgt tatacttctg ctatcactcc 240
caagatgctc caaagcttca cagaagaaaa taatttgata acatttcggg gctgtgtgat 300
acaattctta gtttatgcaa catttgcaac cagtgaactgt tacctcctag ctattatggc 360
aatggattgt tatgttgcca tctgtaagcc ccttcgctat cccatgatca tgtcccaaac 420
agtcctacat caactcgtag ctggctcata tattataggc tcaataaatg cctctgtaca 480
tacaggtttt acattttcac tgccttctg caagtctaataaaaatcaatc actttttctg 540
tgatgggtct ccaattcttg ccctttcatg ctccaacatt gacatcaaca tcattctaga 600
tggtgtcttt gtgggatttg acttgatgtt cactgagttg gtcacatctt tttcctacat 660
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cacatgtgcc tcccacctga cagcagtaac ctttttctat gggacactct cttacatgta 780
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<210> 32

<211> 298

<212> PRT

<213> Homo sapiens

<400> 32

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Met Gly Arg Gly Asn Ser Thr Glu Val Thr Glu Phe His Leu Leu Gly
  1               5               10              15

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Phe Gly Val Gln His Glu Phe Gln His Val Leu Phe Ile Val Leu Leu
      20               25              30

```

```

Leu Ile Tyr Val Thr Ser Leu Ile Gly Asn Ile Gly Met Ile Leu Leu
      35               40              45

```

```

Ile Lys Thr Asp Ser Arg Leu Gln Thr Pro Met Tyr Phe Phe Pro Gln
      50               55              60

```

```

His Leu Ala Phe Val Asp Ile Cys Tyr Thr Ser Ala Ile Thr Pro Lys
      65               70              75              80

```

```

Met Leu Gln Ser Phe Thr Glu Glu Asn Asn Leu Ile Thr Phe Arg Gly
      85               90              95

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```

Cys Val Ile Gln Phe Leu Val Tyr Ala Thr Phe Ala Thr Ser Asp Cys
      100              105              110

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```

Tyr Leu Leu Ala Ile Met Ala Met Asp Cys Tyr Val Ala Ile Cys Lys
      115              120              125

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Pro Leu Arg Tyr Pro Met Ile Met Ser Gln Thr Val Tyr Ile Gln Leu
 130 135 140
 Val Ala Gly Ser Tyr Ile Ile Gly Ser Ile Asn Ala Ser Val His Thr
 145 150 155 160
 Gly Phe Thr Phe Ser Leu Ser Phe Cys Lys Ser Asn Lys Ile Asn His
 165 170 175
 Phe Phe Cys Asp Gly Leu Pro Ile Leu Ala Leu Ser Cys Ser Asn Ile
 180 185 190
 Asp Ile Asn Ile Ile Leu Asp Val Val Phe Val Gly Phe Asp Leu Met
 195 200 205
 Phe Thr Glu Leu Val Ile Ile Phe Ser Tyr Ile Tyr Ile Met Val Thr
 210 215 220
 Ile Leu Lys Met Ser Ser Thr Ala Gly Arg Lys Lys Ser Phe Ser Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Ala Val Thr Ile Phe Tyr Gly Thr Leu Ser
 245 250 255
 Tyr Met Tyr Leu Gln Pro Gln Ser Asn Asn Ser Gln Glu Asn Met Lys
 260 265 270
 Val Ala Ser Ile Phe Tyr Gly Thr Val Ile Ser Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Glu Gly Lys
 290 295

<210> 33

<211> 925

<212> DNA

<213> Homo sapiens

<400> 33

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 ggcaacctaa ctatgatcat tttgaccaa ctggactccc acttacatac acctatgtac 180
 ttttctatca gacatttggc ttctgttgat cttggtaatt ctactgtcat ttgtcccaag 240
 gtgctggcaa attttgttgt ggatcgaaat actatttcct attatgcatg tgctgcacag 300
 ctggcattct tccttatgtt cattatcagt gaatttttca tctgtgcagc catggcctat 360
 gaccgctatg tggccatttg taaccctctg ctctattatg ttattatgtc tcagcgactg 420
 tgtcatgtac tggtgggcat tcaatatctc tacagcacat ttcaggctct gatgttcaact 480

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attaagattt ttacattgac cttctgtggc tctaattgtca tcagtcattt ttactgtgat 540
gatgttcctt tgctacctat gctttgctca aatgcacagg aaatagaatt gttgagcata 600
ctatcttctg tatttaattt gatctcctcc tttctgatag tcttagtgtc ctacatgttg 660
atcttgtag ctatatgtca aatgcattct gcagagggca ggaaaaaggc tttctccaca 720
tgtggttccc atttgacagt ggtggttggt ttctatgggt ctctactctt catgtacatg 780
cagcccaatt ccactcactt ctttgatact gataaaatgg cttctgtgtt ttacacttta 840
gtaatcccca tgcttaacct tttgatttac agcttaagaa acgaagaggt gaaaaatgcc 900
ttctataagc tctttgagaa ttgat 925

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<210> 34

<211> 307

<212> PRT

<213> Homo sapiens

<400> 34

Met Gly Gln His Asn Leu Thr Val Leu Thr Glu Phe Ile Leu Met Glu

1 5 10 15

Leu Thr Arg Arg Pro Glu Leu Gln Ile Pro Leu Phe Gly Val Phe Leu

20 25 30

Val Ile Tyr Leu Ile Thr Val Val Gly Asn Leu Thr Met Ile Ile Leu

35 40 45

Thr Lys Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Ser Ile Arg

50 55 60

His Leu Ala Ser Val Asp Leu Gly Asn Ser Thr Val Ile Cys Pro Lys

65 70 75 80

Val Leu Ala Asn Phe Val Val Asp Arg Asn Thr Ile Ser Tyr Tyr Ala

85 90 95

Cys Ala Ala Gln Leu Ala Phe Phe Leu Met Phe Ile Ile Ser Glu Phe

100 105 110

Phe Ile Leu Ser Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn

115 120 125

Pro Leu Leu Tyr Tyr Val Ile Met Ser Gln Arg Leu Cys His Val Leu

130 135 140

Val Gly Ile Gln Tyr Leu Tyr Ser Thr Phe Gln Ala Leu Met Phe Thr

145 150 155 160

Ile Lys Ile Phe Thr Leu Thr Phe Cys Gly Ser Asn Val Ile Ser His

165 170 175

Phe Tyr Cys Asp Asp Val Pro Leu Leu Pro Met Leu Cys Ser Asn Ala
 180 185 190
 Gln Glu Ile Glu Leu Leu Ser Ile Leu Phe Ser Val Phe Asn Leu Ile
 195 200 205
 Ser Ser Phe Leu Ile Val Leu Val Ser Tyr Met Leu Ile Leu Leu Ala
 210 215 220
 Ile Cys Gln Met His Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Gly Ser His Leu Thr Val Val Val Val Phe Tyr Gly Ser Leu Leu
 245 250 255
 Phe Met Tyr Met Gln Pro Asn Ser Thr His Phe Phe Asp Thr Asp Lys
 260 265 270
 Met Ala Ser Val Phe Tyr Thr Leu Val Ile Pro Met Leu Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Glu Glu Val Lys Asn Ala Phe Tyr Lys Leu
 290 295 300
 Phe Glu Asn
 305

<210> 35
 <211> 925
 <212> DNA
 <213> Homo sapiens

<400> 35
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 ggcaacctaa ctatgatcat ttgaccaa ctggactccc acttacatac acctatgtac 180
 ttttctatca gacatttggc ttctgttgat cttggttaatt ctactgtcat ttgtcccaag 240
 gtgctggcaa attttgttgt ggatcgaaat actatttcct attatgcatg tgctgcacag 300
 ctggcattct tccttatgtt cattatcagt gaatttttca tcctgtcagc catggcctat 360
 gaccgctatg tggccatttg taacctctct ctctattatg ttattatgtc tcagcgactg 420
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 attaagattt ttacattgac cttctgtggc tctaattgtca tcagtcattt ttaactgtgat 540
 gatgttcctt tgctacctat gctttgctca aatgcacagg aaatagaatt gttgagcata 600
 ctattttctg tatttaattt gatctcctcc tttctgatag tcttagtgtc ctacatgttg 660
 attttgttag ctatatgtca aatgcattct gcagagggca ggaaaaaggc tttctccaca 720
 tgtggttccc atttgacagt ggtggttgtg ttctatgggc ctctactctt catgtacatg 780

cagcccaatt ccactcactt ctttgatact gataaaatgg cttctgtggt ttacacttta 840
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 ttctataagc tctttgagaa ttgat 925

<210> 36
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Gly Gln His Asn Leu Thr Val Leu Thr Glu Phe Ile Leu Met Glu
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 Leu Thr Arg Arg Pro Glu Leu Gln Ile Pro Leu Phe Gly Val Phe Leu
 20 25 30
 Val Ile Tyr Leu Ile Thr Val Val Gly Asn Leu Thr Met Ile Ile Leu
 35 40 45
 Thr Lys Leu Asp Ser His Leu His Thr Pro Met Tyr Phe Ser Ile Arg
 50 55 60
 His Leu Ala Ser Val Asp Leu Gly Asn Ser Thr Val Ile Cys Pro Lys
 65 70 75 80
 Val Leu Ala Asn Phe Val Val Asp Arg Asn Thr Ile Ser Tyr Tyr Ala
 85 90 95
 Cys Ala Ala Gln Leu Ala Phe Phe Leu Met Phe Ile Ile Ser Glu Phe
 100 105 110
 Phe Ile Leu Ser Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Tyr Val Ile Met Ser Gln Arg Leu Cys His Val Leu
 130 135 140
 Val Gly Ile Gln Tyr Leu Tyr Ser Thr Phe Gln Ala Leu Met Phe Thr
 145 150 155 160
 Ile Lys Ile Phe Thr Leu Thr Phe Cys Gly Ser Asn Val Ile Ser His
 165 170 175
 Phe Tyr Cys Asp Asp Val Pro Leu Leu Pro Met Leu Cys Ser Asn Ala
 180 185 190
 Gln Glu Ile Glu Leu Leu Ser Ile Leu Phe Ser Val Phe Asn Leu Ile

195 200 205
 Ser Ser Phe Leu Ile Val Leu Val Ser Tyr Met Leu Ile Leu Leu Ala
 210 215 220

 Ile Cys Gln Met His Ser Ala Glu Gly Arg Lys Lys Ala Phe Ser Thr
 225 230 235 240

 Cys Gly Ser His Leu Thr Val Val Val Val Phe Tyr Gly Pro Leu Leu
 245 250 255

 Phe Met Tyr Met Gln Pro Asn Ser Thr His Phe Phe Asp Thr Asp Lys
 260 265 270

 Met Ala Ser Val Phe Tyr Thr Leu Val Ile Pro Met Leu Asn Pro Leu
 275 280 285

 Ile Tyr Ser Leu Arg Asn Glu Glu Val Lys Asn Ala Phe Tyr Lys Leu
 290 295 300

 Phe Glu Asn
 305

<210> 37
 <211> 1071
 <212> DNA
 <213> Homo sapiens

<400> 37
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 ggcctacatc tttgccttat ttggtaatat ctccattatc ctagtttccc gcctagaccc 180
 ccagcttgac agcccatgt acttttttgt ctccaacctt tctcttctgg acctctgcta 240
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<210> 38
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 38
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 20 25 30

 Val Ala Tyr Ile Phe Ala Leu Phe Gly Asn Ile Ser Ile Ile Leu Val
 35 40 45

 Ser Arg Leu Asp Pro Gln Leu Asp Ser Pro Met Tyr Phe Phe Val Ser
 50 55 60

 Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln
 65 70 75 80

 Met Leu Val Asn Leu Arg Gly Pro Glu Lys Thr Ile Ser Tyr Gly Gly
 85 90 95

 Cys Val Ala Gln Leu Tyr Ile Phe Leu Ala Leu Gly Ser Thr Glu Cys
 100 105 110

 Ile Leu Leu Ala Ile Met Ala Phe Asp Arg Phe Ala Ala Ile Cys Arg
 115 120 125

 Pro Leu His Tyr Pro Ile Ile Met Asn Gln Lys Arg Cys Ile His Met
 130 135 140

 Ala Thr Gly Thr Trp Ile Ser Gly Phe Ala Asn Ser Leu Val Gln Ser
 145 150 155 160

 Thr Leu Thr Val Val Ala Pro Arg Cys Gly Gln Arg Val Ile Asp His
 165 170 175

 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ala Cys Thr Asp Thr
 180 185 190

 Ser Val Asn Glu Ala Glu Leu Asn Val Leu Gly Ala Leu Leu Leu Leu
 195 200 205

 Val Pro Leu Ser Leu Ile Leu Gly Thr Tyr Val Phe Ile Ala Gln Ala

210	215	220
Val Leu Lys Leu Arg Ser Ala Glu Ser Arg Arg Lys Ala Phe Asn Thr		
225	230	235 240
Cys Ala Ser His Leu Leu Val Val Ser Leu Phe Tyr Phe Thr Ala Ile		
245	250	255
Ser Met Tyr Val Gln Pro Pro Ser Ser Tyr Ser His Glu Arg Gly Lys		
260	265	270
Ile Met Ala Leu Phe Tyr Gly Ile Val Thr Pro Thr Leu Asn Pro Phe		
275	280	285
Ile Tyr Thr Leu Arg Asn Lys Asp Val Lys Ala Ala Leu Arg Arg Ala		
290	295	300
Leu Thr Lys Glu Phe Trp Val Lys Ala Arg Gln		
305	310	315

<210> 39

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 39

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gaataaggat gttaaggctg ccctgaggag ggcaactaaca aaggagtttt gggcaaggc 960
aaggcaatag ctagagaaaag atcaaagaag caagaattaa cagatttgct tctcaaagac 1020
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<210> 40

<211> 315

<212> PRT

<213> Homo sapiens

<400> 40

Met Trp Ile Asn Asn Gln Ser Ser Val Asp Asp Phe Ile Leu Leu Gly
1 5 10 15

Phe Ser Asp Arg Pro Trp Leu Glu Thr Pro Leu Phe Val Ile Phe Leu
20 25 30

Val Ala Tyr Ile Phe Ala Leu Phe Gly Asn Ile Ser Ile Ile Leu Val
35 40 45

Ser Arg Leu Asp Pro Gln Leu Asp Ser Pro Met Tyr Phe Phe Val Ser
50 55 60

Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln
65 70 75 80

Met Leu Val Asn Leu Arg Gly Pro Glu Lys Thr Ile Ser Tyr Gly Gly
85 90 95

Cys Val Ala Gln Leu Tyr Ile Phe Leu Ala Leu Gly Ser Thr Glu Cys
100 105 110

Ile Leu Leu Ala Ile Met Ala Phe Asp Arg Phe Ala Ala Ile Cys Arg
115 120 125

Pro Leu His Tyr Pro Ile Ile Met Asn Gln Lys Arg Cys Ile His Met
130 135 140

Ala Thr Gly Thr Trp Ile Ser Gly Phe Ala Asn Ser Leu Val Gln Ser
145 150 155 160

Thr Leu Thr Val Val Ala Pro Arg Cys Gly Gln Arg Val Ile Asp His
165 170 175

Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ala Cys Thr Asp Thr
180 185 190

Ser Val Asn Glu Ala Glu Leu Asn Val Leu Gly Ala Leu Leu Leu Leu
195 200 205

Val Pro Leu Ser Leu Ile Leu Gly Thr Tyr Val Phe Ile Ala Gln Ala
210 215 220

Val Leu Lys Leu Arg Ser Ala Glu Ser Arg Arg Lys Ala Phe Asn Thr

225		230		235		240									
Cys	Ala	Ser	His	Leu	Leu	Val	Val	Ser	Leu	Phe	Tyr	Phe	Thr	Ala	Ile
			245					250						255	
Ser	Met	Tyr	Val	Gln	Pro	Pro	Ser	Ser	Tyr	Ser	His	Glu	Arg	Gly	Lys
		260						265					270		
Ile	Met	Ala	Leu	Phe	Tyr	Gly	Ile	Val	Thr	Pro	Thr	Leu	Asn	Pro	Phe
	275						280					285			
Ile	Tyr	Thr	Leu	Arg	Asn	Lys	Asp	Val	Lys	Ala	Ala	Leu	Arg	Arg	Ala
	290					295					300				
Leu	Thr	Lys	Glu	Phe	Trp	Val	Lys	Ala	Arg	Gln					
305					310					315					

<210> 41
 <211> 947
 <212> DNA
 <213> Homo sapiens

<400> 41
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 ctgggaaacc tgctaatacat tgcccttggt cgactggatt cccatctcca cacaccaatg 180
 tacttgtttc tcagcaactt gtccttctct gatctctgct tttcctctgt cacaatcccc 240
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 cagctgtact tctttatggt ttttggagat atggaaagct ttcttcttgt ggtcatggcc 360
 tatgatcggt atgtggccat ctgctttcct ttgcattaca ccagcatcat gagtaccaag 420
 ttctgtactt cactagtgt actactgtgg atgtgacaa catctaatagc cttgatgcac 480
 accttgctca tggctagatt gtctttttgt gagaagaatg tgattctccg ctttttctgt 540
 gacatttctg ctcttctgaa gttgtcttgc tcagacactt ttgttaatga gttgatgata 600
 tttatcatgg gaggtatcat tattattatt ccattcctac tcatagttat gtcctatgta 660
 aggattttct tctccattct caaggtccca tctacacagg gcatccacaa ggtcttttct 720
 acatgtggat cccatctgtc tgtgggtgtc ctgttctatg gaacaattat tgggtctatac 780
 ttatgcccac caagtaataa ttccactgta aaagagagtg ccatggctat gatgtacaca 840
 gtggtgactc ctatgctgaa ccccttcac tacagtctga ggaacagaga catgaagaga 900
 gccctaataa gagttatctg cagtaagaaa atctctctgt aatggaa 947

<210> 42
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 42

Met	Thr	Gly	Asn	Asn	Gln	Thr	Leu	Ile	Ser	Lys	Phe	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Pro	Ile	Leu	Ser	Glu	Tyr	His	Phe	Leu	Phe	Tyr	Ala	Leu	Phe	Leu	20	25	30	
Ala	Met	Tyr	Leu	Thr	Thr	Ile	Leu	Gly	Asn	Leu	Leu	Ile	Ile	Ala	Leu	35	40	45	
Val	Arg	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Met	Tyr	Leu	Phe	Leu	Ser	50	55	60	
Asn	Leu	Ser	Phe	Ser	Asp	Leu	Cys	Phe	Ser	Ser	Val	Thr	Ile	Pro	Lys	65	70	75	80
Leu	Leu	Gln	Asn	Met	Gln	Ser	Gln	Val	Pro	Ser	Ile	Ser	Tyr	Val	Gly	85	90	95	
Cys	Leu	Thr	Gln	Leu	Tyr	Phe	Phe	Met	Val	Phe	Gly	Asp	Met	Glu	Ser	100	105	110	
Phe	Leu	Leu	Val	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Phe	115	120	125	
Pro	Leu	His	Tyr	Thr	Ser	Ile	Met	Ser	Thr	Lys	Phe	Cys	Thr	Ser	Leu	130	135	140	
Val	Leu	Leu	Leu	Trp	Met	Leu	Thr	Thr	Ser	Asn	Ala	Leu	Met	His	Thr	145	150	155	160
Leu	Leu	Met	Ala	Arg	Leu	Ser	Phe	Cys	Glu	Lys	Asn	Val	Ile	Leu	Arg	165	170	175	
Phe	Phe	Cys	Asp	Ile	Ser	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr	180	185	190	
Phe	Val	Asn	Glu	Leu	Met	Ile	Phe	Ile	Met	Gly	Gly	Ile	Ile	Ile	Ile	195	200	205	
Ile	Pro	Phe	Leu	Leu	Ile	Val	Met	Ser	Tyr	Val	Arg	Ile	Phe	Phe	Ser	210	215	220	
Ile	Leu	Lys	Val	Pro	Ser	Thr	Gln	Gly	Ile	His	Lys	Val	Phe	Ser	Thr	225	230	235	240
Cys	Gly	Ser	His	Leu	Ser	Val	Val	Ser	Leu	Phe	Tyr	Gly	Thr	Ile	Ile	245	250	255	

Gly Leu Tyr Leu Cys Pro Ser Ser Asn Asn Ser Thr Val Lys Glu Ser
 260 265 270

Ala Met Ala Met Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285

Ile Tyr Ser Leu Arg Asn Arg Asp Met Lys Arg Ala Leu Ile Arg Val
 290 295 300

Ile Cys Ser Lys Lys Ile Ser Leu
 305 310

<210> 43
 <211> 980
 <212> DNA
 <213> Homo sapiens

<400> 43
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 actctaattg gaaacatcct cattgtgacc gtcaccacct gtgacagcag ccttcacatg 180
 cccatgtact tcttcctcag gaatctgtct atcttgatg cctgctacat ttctgttaca 240
 gtccctacct catgtgtcaa ttccctactg gacagcacca ccatttctaa ggcgggatgt 300
 gtagctcagg tcttcctcgt ggtttttttt gtatatgtgg agcttctgtt tctcaccatt 360
 atggctcatg accgctatgt ggctgtctgc cagccacttc actaccctgt gatcgtgaac 420
 tctcgaatct gcatccagat gacactggcc tccctactca gtggtcttgt ctatgcaggc 480
 atgcacactg gcagcacatt ccagctgccc ttctgtcggg ccaacgttat tcatcaattc 540
 ttctgtgaca tcccctctct gctgaagctc tcttgctctg acaccttcag caatgaggtc 600
 atgattgttg tctctgctct gggggtaggg ggcggtgtt tcatctttat catcagggtc 660
 tacattcaca tcttttcgac cgtgctcggg tttccaagag gagcagacag aacaaaggcc 720
 ttttccacct gcatccctca catcctgggtg gtgtcagttc atgctcttct 780
 gtgtacctca ggccacctgc gatacctgca gccaccagg atctgaccc tcttggtttt 840
 tattccataa tgccctccct ctttaacct attatttaca gtcttagaaa taagcaaata 900
 aagggtggcca tcaagaaaat catgaagaga attttttatt cagaaaatgt gtaagaaacc 960
 cgagaggctc accctaggct 980

<210> 44
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 44
 Met Pro Asn Ser Thr Thr Val Met Glu Phe Leu Leu Met Arg Phe Ser
 1 5 10 15

Asp Val Trp Thr Leu Gln Ile Leu His Ser Ala Ser Phe Phe Met Leu

275

280

285

Ser Leu Arg Asn Lys Gln Ile Lys Val Ala Ile Lys Lys Ile Met Lys
 290 295 300

Arg Ile Phe Tyr Ser Glu Asn Val
 305 310

<210> 45

<211> 980

<212> DNA

<213> Homo sapiens

<400> 45

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cttcatcatc caccgatgcc caattcaacc accgtgatgg aatttctcct catgagggtt 60
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actctaattg gaaacatcct cattgtgacc gtcaccacct gtgacagcag ctttcacatg 180
cccatgtact tcttcctcag gaatctgtct atcttggtat cctgctacat ttctgttaca 240
gtccctacct catgtgtcaa ttccctactg gacagcacca ccatttctaa ggcgggatgt 300
gtagctcagg tcttcctcgt ggtttttttt gtatatgtgg agcttctgtt tctcaccatt 360
atggctcatg accgctatgt ggctgtctgc cagccacttc actaccctgt gatcgtgaac 420
tctcgaatct gcatccagat gacactggcc tccctactca gtggtcttgt ctatgcaggc 480
atgcacactg gcagcacatt ccagctgccc ttctgtcggg ccaacggtat tcatcaattc 540
ttctgtgaca tccccctctc gctgaagctc tcttgctctg acaccttcag caatgaggtc 600
atgattgttg tctctgctct gggggtaggt ggcggctgtt tcattcttat catcaggctc 660
tacattcaca tcttttcgac cgtgctcggg tttccaagag gagcagacag aacaaaggcc 720
ttttccacct gcatccctca catcctgggt gtgtcagttc tcctcagttc atgctcttct 780
gtgtacctca ggccacctgc gatacctgca gccaccagg atctgatcct ttctgggttt 840
tattccataa tgccctccct ctttaaccct attatttaca gtcttagaaa taagcaaata 900
aaggtggcca tcaagaaaat catgaagaga attttttatt cagaaaatgt gtaagaaacc 960
cgagaggctc accctaggct

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<210> 46

<211> 312

<212> PRT

<213> Homo sapiens

<400> 46

Met Pro Asn Ser Thr Thr Val Met Glu Phe Leu Leu Met Arg Phe Ser
 1 5 10 15

Asp Val Trp Thr Leu Gln Ile Leu His Ser Ala Ser Phe Phe Met Leu
 20 25 30

Tyr Leu Val Thr Leu Met Gly Asn Ile Leu Ile Val Thr Val Thr Thr
 35 40 45

Arg Ile Phe Tyr Ser Glu Asn Val
 305 310

<210> 47
 <211> 931
 <212> DNA
 <213> Homo sapiens

<400> 47
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 accagagctc caaatgcctc tctttttcct gttcttggga atctacattg tatccatggg 120
 ggggaacctg ggcttgactg ttctgattgt tttgaatcct cacctgcaca accccatgta 180
 ctactttctc ttcaaccttt ccttcacaga tctctgctac tccactgtca taacccccag 240
 aatgctggtg ggttttgtga agcagaacac catctctcat gctgagtga tgactcaaca 300
 ctttttcttt tgcttctttg ttattgatga atgctacatt ttgacagcag tggcctatga 360
 cagatatgct gccatctgta agcctctact ttaccaagtt accatgtctc atcaggtttg 420
 cctgctgatg acagttgggg tgtatgtgat gggatttttg gaagccattg cacacactgg 480
 tagtatggta agcctgacct tctgtgatgg caacattatt aatcactatg catgtgacat 540
 acttctctc ctcaactct cctgcacaag caccaccatc aatgagttgg tggttttcat 600
 tgttgtgggt gtcaatgtca tagttccac cctgacaatc tttatttctt acaccttgat 660
 cctttccaac atcctcagca tccattctgc agaaggtagg tcaaaagcct tcagtacctg 720
 tggctcccat gtgattgctg tttcactttt ctttggagct gcagccttca tgtatcttaa 780
 gccttctagt gcactgagg atgatgataa agtatctact atcttttata ccattgtggg 840
 cccaatgctg aatcctttca tctacagtct aaggaataag gatgtctacc ttgcacttag 900
 aaaaactttg atgaaaagga gttttaccta a 931

<210> 48
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 48
 Met Val Leu Glu Asn Ser Ser Ser Val Lys Glu Phe Ile Leu Leu Gly
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 Leu Thr Gln Gln Pro Glu Leu Gln Met Pro Leu Phe Phe Leu Phe Leu
 20 25 30
 Gly Ile Tyr Ile Val Ser Met Val Gly Asn Leu Gly Leu Thr Val Leu
 35 40 45
 Ile Val Leu Asn Pro His Leu His Asn Pro Met Tyr Tyr Phe Leu Phe
 50 55 60
 Asn Leu Ser Phe Thr Asp Leu Cys Tyr Ser Thr Val Ile Thr Pro Arg

65					70						75				80
Met	Leu	Val	Gly	Phe	Val	Lys	Gln	Asn	Thr	Ile	Ser	His	Ala	Glu	Cys
				85					90					95	
Met	Thr	Gln	His	Phe	Phe	Phe	Cys	Phe	Phe	Val	Ile	Asp	Glu	Cys	Tyr
			100					105					110		
Ile	Leu	Thr	Ala	Val	Ala	Tyr	Asp	Arg	Tyr	Ala	Ala	Ile	Cys	Lys	Pro
		115					120					125			
Leu	Leu	Tyr	Gln	Val	Thr	Met	Ser	His	Gln	Val	Cys	Leu	Leu	Met	Thr
	130					135					140				
Val	Gly	Val	Tyr	Val	Met	Gly	Phe	Leu	Glu	Ala	Ile	Ala	His	Thr	Gly
145					150				155						160
Ser	Met	Val	Ser	Leu	Thr	Phe	Cys	Asp	Gly	Asn	Ile	Ile	Asn	His	Tyr
				165					170					175	
Ala	Cys	Asp	Ile	Leu	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Thr	Ser	Thr	Thr
			180					185					190		
Ile	Asn	Glu	Leu	Val	Val	Phe	Ile	Val	Val	Gly	Val	Asn	Val	Ile	Val
		195					200					205			
Pro	Thr	Leu	Thr	Ile	Phe	Ile	Ser	Tyr	Thr	Leu	Ile	Leu	Ser	Asn	Ile
	210					215					220				
Leu	Ser	Ile	His	Ser	Ala	Glu	Gly	Arg	Ser	Lys	Ala	Phe	Ser	Thr	Cys
225					230					235					240
Gly	Ser	His	Val	Ile	Ala	Val	Ser	Leu	Phe	Phe	Gly	Ala	Ala	Ala	Phe
				245					250					255	
Met	Tyr	Leu	Lys	Pro	Ser	Ser	Ala	Ser	Glu	Asp	Asp	Asp	Lys	Val	Ser
			260					265					270		
Thr	Ile	Phe	Tyr	Thr	Ile	Val	Gly	Pro	Met	Leu	Asn	Pro	Phe	Ile	Tyr
		275					280					285			
Ser	Leu	Arg	Asn	Lys	Asp	Val	Tyr	Leu	Ala	Leu	Arg	Lys	Thr	Leu	Met
	290					295					300				
Lys	Arg	Ser	Phe	Thr											
305															

<210> 49
 <211> 941
 <212> DNA
 <213> Homo sapiens

<400> 49
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 ggggaacctc atcatcatca tcctcattcg actggactcc catctccaca caccatgta 180
 cttgtttctc agcaacttgt cttctctga tctctgttt tcctctgtca caatgcccaa 240
 attgctgcag aacattcaga gccaggacct atccatctcc tatgccgggt gcctgacaca 300
 aatgtacttt ttcattggtt ttgcaaacac agagaatgtt cttctgtgg tcatggccta 360
 tgaccgctat gtggccatct gttccctct tcattacacc agcatcatga gccctaagct 420
 ctgtgtgtct ctggtggtgc tcacctgggt atttaccgtt ctgtattcca tgttacacac 480
 cctactcttg gcaagattgt cattctgtga ggacaatgta atcaccact tttctgtga 540
 catactctgcc ctgctcaagt tggcctgctc tgacacttat attaatgaac taatgatatt 600
 tatcttgga acacttgata ctgtggtgcc attcttactc attgtgttt cctatgtaca 660
 aattgtctgc tccattctaa agttttcaac taaacagggc atagccaagg tctttccac 720
 ctgtggctcc cacctgtctg tggctcact gttctatggg acaattattg gtgtctactt 780
 atgcccatca gctaataact ctactgtaaa ggagattgtc atggctctga tgtacacagt 840
 ggtgactccc atgtgaatc cattcatcta cagtctgaga aacagagata taaaagaggc 900
 cctgatcaga gtcctatgta agaagcaat ccccttataa t 941

<210> 50
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 50
 Met Ile Ile Asn Asn Gln Thr Ala Ile Pro Gln Phe Ile Leu Leu Gly
 1 5 10 15
 Leu Pro Ile Leu Pro Glu Gln Gln Gln Met Phe Tyr Ala Leu Phe Leu
 20 25 30
 Ala Met Tyr Leu Thr Thr Val Leu Gly Asn Leu Ile Ile Ile Ile Leu
 35 40 45
 Ile Arg Leu Asp Ser His Leu His Thr Pro Met Tyr Leu Phe Leu Ser
 50 55 60
 Asn Leu Ser Phe Ser Asp Leu Cys Phe Ser Ser Val Thr Met Pro Lys
 65 70 75 80
 Leu Leu Gln Asn Ile Gln Ser Gln Asp Pro Ser Ile Ser Tyr Ala Gly
 85 90 95

Cys Leu Thr Gln Met Tyr Phe Phe Met Val Phe Ala Asn Thr Glu Asn
 100 105 110
 Val Leu Leu Val Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Phe
 115 120 125
 Pro Leu His Tyr Thr Ser Ile Met Ser Pro Lys Leu Cys Val Ser Leu
 130 135 140
 Val Val Leu Thr Trp Val Phe Thr Val Leu Tyr Ser Met Leu His Thr
 145 150 155 160
 Leu Leu Leu Ala Arg Leu Ser Phe Cys Glu Asp Asn Val Ile Thr His
 165 170 175
 Phe Phe Cys Asp Ile Ser Ala Leu Leu Lys Leu Ala Cys Ser Asp Thr
 180 185 190
 Tyr Ile Asn Glu Leu Met Ile Phe Ile Leu Gly Thr Leu Asp Thr Val
 195 200 205
 Val Pro Phe Leu Leu Ile Val Val Ser Tyr Val Gln Ile Val Cys Ser
 210 215 220
 Ile Leu Lys Phe Ser Thr Lys Gln Gly Ile Ala Lys Val Phe Ser Thr
 225 230 235 240
 Cys Gly Ser His Leu Ser Val Val Ser Leu Phe Tyr Gly Thr Ile Ile
 245 250 255
 Gly Val Tyr Leu Cys Pro Ser Ala Asn Asn Ser Thr Val Lys Glu Ile
 260 265 270
 Val Met Ala Leu Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285
 Ile Tyr Ser Leu Arg Asn Arg Asp Ile Lys Glu Ala Leu Ile Arg Val
 290 295 300
 Leu Cys Lys Lys Gln Ile Pro Leu
 305 310

<210> 51

<211> 972

<212> DNA

<213> Homo sapiens

<400> 51

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tagccaatct gggcatgact gcactgattc aggtcagctc tcggctccac acccccgtgt 180
actttttcct cagccacttg tcctttgtag atttctgcta ctctcaata attgtgcaa 240
agatggttggc taatatcttt aacaaggaca aagccatctc cttcctaggg tgcattggtgc 300
aattctactt gttttgcaca tgtggagtca ctgaggtctt cctgctggcc gtgatggcct 360
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tgctgtgtgga gctgacctct tgctgctact tctgtgggac ggtgtgttct ctgattcact 480
cgctccttagc tcttaggata ctcttctata gatctaattg gattaaccac ttcttctgtg 540
atctaccccc tctcctaagt cttgcttgct ctgatgtcac tgtgaatgag aactgtctgt 600
tcctgggtggc cactttgaat gagagtgtta ccatcatgat catcctcacc tcctacctgc 660
taattctcac cactatcttg aagatacaact ctgcagagag caggcacaaa gctttctcca 720
cctgtgcctc ccacctcaca gccatcactg tctcccatgg aacaatcctt tacatttatt 780
gcaggccgag ttcaggcaac agtggagatg ttgacaaagt ggccaccgtg ttctacacag 840
ttgtgattcc catgctgaac cccctgatct acagcctgag aaataaggat gtgaacaaag 900
ctctcagaaa agtgatgggc tccaaaattc actcctaggg aagattttat tcacagaatt 960
caggatcccc aa 972
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<210> 52

<211> 311

<212> PRT

<213> Homo sapiens

<400> 52

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Met Gly Lys Glu Asn Cys Thr Thr Val Ala Glu Phe Ile Leu Leu Gly
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Leu Ser Asp Val Pro Glu Leu Arg Val Cys Leu Phe Leu Leu Phe Leu
  20              25              30

Leu Ile Tyr Gly Val Thr Leu Leu Ala Asn Leu Gly Met Thr Ala Leu
  35              40              45

Ile Gln Val Ser Ser Arg Leu His Thr Pro Val Tyr Phe Phe Leu Ser
  50              55              60

His Leu Ser Phe Val Asp Phe Cys Tyr Ser Ser Ile Ile Val Pro Lys
  65              70              75              80

Met Leu Ala Asn Ile Phe Asn Lys Asp Lys Ala Ile Ser Phe Leu Gly
  85              90              95

Cys Met Val Gln Phe Tyr Leu Phe Cys Thr Cys Gly Val Thr Glu Val
 100              105              110

Phe Leu Leu Ala Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys Asn
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115		120		125
Pro Leu Leu Tyr Met Val Thr Met Ser Gln Lys Leu Arg Val Glu Leu				
130		135		140
Thr Ser Cys Cys Tyr Phe Cys Gly Thr Val Cys Ser Leu Ile His Ser				
145		150		155
				160
Ser Leu Ala Leu Arg Ile Leu Phe Tyr Arg Ser Asn Val Ile Asn His				
		165		170
				175
Phe Phe Cys Asp Leu Pro Pro Leu Leu Ser Leu Ala Cys Ser Asp Val				
		180		185
				190
Thr Val Asn Glu Thr Leu Leu Phe Leu Val Ala Thr Leu Asn Glu Ser				
		195		200
				205
Val Thr Ile Met Ile Ile Leu Thr Ser Tyr Leu Leu Ile Leu Thr Thr				
		210		215
				220
Ile Leu Lys Ile His Ser Ala Glu Ser Arg His Lys Ala Phe Ser Thr				
225		230		235
				240
Cys Ala Ser His Leu Thr Ala Ile Thr Val Ser His Gly Thr Ile Leu				
		245		250
				255
Tyr Ile Tyr Cys Arg Pro Ser Ser Gly Asn Ser Gly Asp Val Asp Lys				
		260		265
				270
Val Ala Thr Val Phe Tyr Thr Val Val Ile Pro Met Leu Asn Pro Leu				
		275		280
				285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Asn Lys Ala Leu Arg Lys Val				
		290		295
				300
Met Gly Ser Lys Ile His Ser				
305		310		

<210> 53

<211> 947

<212> DNA

<213> Homo sapiens

<400> 53

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tgggaaatgg agccatcatc tgtgcagtaa gatgtgactc acgtctacat acccccatgt 180


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acttctcct gggaaat ttt gccttccttg aaatctggta tgtttcctcc actattccta 240
acatactagc caacattctg tctaagacca aggccatctc attttcaggg tgcttcctgc 300
agttctat ttt cttcttttca ctaggtacaa ctgaatgtct cttcctggca gtaatggctt 360
atgataggta cctggccatt tgccgcccat tacattacc caccatcatg actaggaggc 420
tgtgttgcat tctgggtatcc tcatgctggc tcattggatt tcttgggtac ccaatcccta 480
tcttctccat ttcccagctt cccttctgtg gttctaatat cattgatcac ttcctctgtg 540
acatggaccc attgatggct ttgtcctgtg ccccagctcc tattactgaa tttat tttttt 600
atgccc aaag ttcctttgtc ctctttttca ctattgcata cattcttcgg tcctata tttt 660
tgttgctcag ggctgttttt caggttcctt ctgcagctgg ccgacgaaag gccttctcta 720
cctgtgggtc ccatttagtt gtgggtatcac tcttctatgg tacagtaatg gtaatgtatg 780
tgagtcctac atatggcatt ccaat ttttga tgcagaagat ccttacactt gtatactctg 840
taatgactcc tctctttaat cctctgattt atagccttcg taacaaggac atgaaacttg 900
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<210> 54

<211> 313

<212> PRT

<213> Homo sapiens

<400> 54

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Met Asn Arg Ser Ala Ala His Val Thr Glu Phe Val Leu Leu Gly Phe
  1              5              10              15

Pro Gly Ser Trp Lys Ile Gln Ile Phe Leu Phe Val Leu Phe Leu Val
          20              25              30

Phe Tyr Val Leu Thr Leu Leu Gly Asn Gly Ala Ile Ile Cys Ala Val
          35              40              45

Arg Cys Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Gly Asn
          50              55              60

Phe Ala Phe Leu Glu Ile Trp Tyr Val Ser Ser Thr Ile Pro Asn Ile
          65              70              75              80

Leu Ala Asn Ile Leu Ser Lys Thr Lys Ala Ile Ser Phe Ser Gly Cys
          85              90              95

Phe Leu Gln Phe Tyr Phe Phe Phe Ser Leu Gly Thr Thr Glu Cys Leu
          100             105             110

Phe Leu Ala Val Met Ala Tyr Asp Arg Tyr Leu Ala Ile Cys Arg Pro
          115             120             125

Leu His Tyr Pro Thr Ile Met Thr Arg Arg Leu Cys Cys Ile Leu Val
          130             135             140

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Ser Ser Cys Trp Leu Ile Gly Phe Leu Gly Tyr Pro Ile Pro Ile Phe
 145 150 155 160
 Ser Ile Ser Gln Leu Pro Phe Cys Gly Ser Asn Ile Ile Asp His Phe
 165 170 175
 Leu Cys Asp Met Asp Pro Leu Met Ala Leu Ser Cys Ala Pro Ala Pro
 180 185 190
 Ile Thr Glu Phe Ile Phe Tyr Ala Gln Ser Ser Phe Val Leu Phe Phe
 195 200 205
 Thr Ile Ala Tyr Ile Leu Arg Ser Tyr Ile Leu Leu Leu Arg Ala Val
 210 215 220
 Phe Gln Val Pro Ser Ala Ala Gly Arg Arg Lys Ala Phe Ser Thr Cys
 225 230 235 240
 Gly Ser His Leu Val Val Val Ser Leu Phe Tyr Gly Thr Val Met Val
 245 250 255
 Met Tyr Val Ser Pro Thr Tyr Gly Ile Pro Ile Leu Met Gln Lys Ile
 260 265 270
 Leu Thr Leu Val Tyr Ser Val Met Thr Pro Leu Phe Asn Pro Leu Ile
 275 280 285
 Tyr Ser Leu Arg Asn Lys Asp Met Lys Leu Ala Leu Arg Asn Val Leu
 290 295 300
 Leu Gly Met Arg Ile Val Lys Asn Met
 305 310

<210> 55

<211> 941

<212> DNA

<213> Homo sapiens

<400> 55

gacatggaac aggataatac aacattgctg acagagtttg ttctcacagg acttacatat 60
 cagccagagt ggaaaatgcc cctgttcttg gtgttcttg tgatctatct catcactatt 120
 gtgtggaacc ttggtctgat tgctcttate tggaatgacc cacaacttca catccccatg 180
 tacttttttc ttgggagttt agcctttggt gatgcttgga tatottccac agtaactccc 240
 aaaatgttgg ttaatttctt ggccaaaaac aggatgatat ctctgtctga atgcatgatt 300
 caattttttt cctttgcatt tgggtggaact acagaatggt ttctcttggc aacaatggca 360
 tatgatcgct atgtagccat atgcaaacct ttactatatc cagtgattat gaacaattca 420
 ctatgcatac ggctgttagc cttctcattt ttaggtgggt tcttccatgc ctttaattcat 480

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gaagtcctta tattcagatt aaccttctgc aattctaaca taatacatca tttttactgt 540
gatattatac cactgtttat gatttctctg actgaccctt ctattaattt tctaattggt 600
tttattttgt ctggctcaat tcaggtattc accattgtga cagttcttaa ttcttacaca 660
tttgctcttt tcacaatcct aaaaaagaag tctgttagag gcgtaaggaa agccttttcc 720
acctgtggag cccatctctt atctgtctct ttatattatg gccacttat cttcatgtat 780
ttgcgccctg catctccaca agcagatgac caagatatga tagactctgt cttttataca 840
atcataattc ctttgctaaa tcccattatc tacagtctga gaaataaaca agtaatagat 900
tcattcacia aaatggtaaa aagaaatgtt tagatttcat a 941

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<210> 56
<211> 309
<212> PRT
<213> Homo sapiens

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<400> 56
Met Glu Gln Asp Asn Thr Thr Leu Leu Thr Glu Phe Val Leu Thr Gly
  1                      5                      10                     15

Leu Thr Tyr Gln Pro Glu Trp Lys Met Pro Leu Phe Leu Val Phe Leu
      20                      25                     30

Val Ile Tyr Leu Ile Thr Ile Val Trp Asn Leu Gly Leu Ile Ala Leu
      35                      40                     45

Ile Trp Asn Asp Pro Gln Leu His Ile Pro Met Tyr Phe Phe Leu Gly
      50                      55                     60

Ser Leu Ala Phe Val Asp Ala Trp Ile Ser Ser Thr Val Thr Pro Lys
      65                      70                     75                     80

Met Leu Val Asn Phe Leu Ala Lys Asn Arg Met Ile Ser Leu Ser Glu
      85                      90                     95

Cys Met Ile Gln Phe Phe Ser Phe Ala Phe Gly Gly Thr Thr Glu Cys
      100                     105                    110

Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys
      115                     120                    125

Pro Leu Leu Tyr Pro Val Ile Met Asn Asn Ser Leu Cys Ile Arg Leu
      130                     135                    140

Leu Ala Phe Ser Phe Leu Gly Gly Phe Leu His Ala Leu Ile His Glu
      145                     150                    155                    160

Val Leu Ile Phe Arg Leu Thr Phe Cys Asn Ser Asn Ile Ile His His
      165                     170                    175

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Phe Tyr Cys Asp Ile Ile Pro Leu Phe Met Ile Ser Cys Thr Asp Pro
 180 185 190
 Ser Ile Asn Phe Leu Met Val Phe Ile Leu Ser Gly Ser Ile Gln Val
 195 200 205
 Phe Thr Ile Val Thr Val Leu Asn Ser Tyr Thr Phe Ala Leu Phe Thr
 210 215 220
 Ile Leu Lys Lys Lys Ser Val Arg Gly Val Arg Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Gly Ala His Leu Leu Ser Val Ser Leu Tyr Tyr Gly Pro Leu Ile
 245 250 255
 Phe Met Tyr Leu Arg Pro Ala Ser Pro Gln Ala Asp Asp Gln Asp Met
 260 265 270
 Ile Asp Ser Val Phe Tyr Thr Ile Ile Ile Pro Leu Leu Asn Pro Ile
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Gln Val Ile Asp Ser Phe Thr Lys Met
 290 295 300
 Val Lys Arg Asn Val
 305

<210> 57
 <211> 943
 <212> DNA
 <213> Homo sapiens

<400> 57
 aatggggtttt gaaaatggct cttcagtgac tgaattcatt ctggtgggat taaccaagga 60
 gtccgatctc cagtgccccc tcttcacacct gtttctaata atgtatgtgg tcaactgtgct 120
 gggaaatcag gggttgatta gcttaattgg actgaactct catctccaca ctccaatgta 180
 ctttttcctc tttaacttgt cctttgttga cctctggtac tcttctgttt tcacacccaa 240
 aatgctggag agctttatat cagagaagaa tactatttcc tacagaggat gcatggcaca 300
 gcttttcttt ttctgttttt tctccatctc tgagtgttac attttgacct caatggccta 360
 tgatcgctat gtggccattt gtaaccact cttgtataat attgtcatgt ctccaaaca 420
 atgtttgatc cttatgttta gttcatacat gatggcattt tctggtgcca tggctcacac 480
 gggatgcatg ctgagactga ccttctgtga tgctaacc atcaatcact acttctgtga 540
 catcctccct ttgcttcagc tctcctgcac cagcacctat gtcaatgaac tggagggtatt 600
 tgttgttgtg ggcataca tcaattgtgc cactatcacc atctttatct cttatggttt 660
 tatcatcgca agtatttttc gtatcagctc caaggaggac aggtccaaag ccttcagcac 720
 ctgcagctcc cacataattg cagtttctct gttcttttga tcaggtgcat ttatgtatct 780

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caaaccatct tctgctgagt caatgaatga aggcaaaatc tcctctatct tttataccaa 840
tacagttcct ctgctgaatc ccttaatcta cagcttgagg aacaaagatg ttaaagatgc 900
cttgataaag accctgagta agagaaagcg ttaaaatgaa cga 943

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<210> 58
<211> 310
<212> PRT
<213> Homo sapiens

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<400> 58
Met Gly Phe Glu Asn Gly Ser Ser Val Thr Glu Phe Ile Leu Val Gly
  1             5             10             15

Leu Thr Lys Glu Ser Asp Leu Gln Cys Pro Leu Phe Ile Leu Phe Leu
      20             25             30

Met Met Tyr Val Val Thr Val Leu Gly Asn Gln Gly Leu Ile Ser Leu
      35             40             45

Ile Gly Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe
      50             55             60

Asn Leu Ser Phe Val Asp Leu Trp Tyr Ser Ser Val Phe Thr Pro Lys
      65             70             75             80

Met Leu Glu Ser Phe Ile Ser Glu Lys Asn Thr Ile Ser Tyr Arg Gly
      85             90             95

Cys Met Ala Gln Leu Phe Phe Phe Cys Phe Phe Ser Ile Ser Glu Cys
      100            105            110

Tyr Ile Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
      115            120            125

Pro Leu Leu Tyr Asn Ile Val Met Ser Pro Lys Gln Cys Leu Ile Leu
      130            135            140

Met Phe Ser Ser Tyr Met Met Ala Phe Ser Gly Ala Met Ala His Thr
      145            150            155            160

Gly Cys Met Leu Arg Leu Thr Phe Cys Asp Ala Asn Thr Ile Asn His
      165            170            175

Tyr Phe Cys Asp Ile Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
      180            185            190

Tyr Val Asn Glu Leu Glu Val Phe Val Val Val Gly Ile Asn Ile Ile

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195	200	205
Val Pro Thr Ile Thr Ile Phe Ile Ser Tyr Gly Phe Ile Ile Ala Ser		
210	215	220
Ile Phe Arg Ile Ser Ser Lys Glu Asp Arg Ser Lys Ala Phe Ser Thr		
225	230	235 240
Cys Ser Ser His Ile Ile Ala Val Ser Leu Phe Phe Gly Ser Gly Ala		
245	250	255
Phe Met Tyr Leu Lys Pro Ser Ser Ala Glu Ser Met Asn Glu Gly Lys		
260	265	270
Ile Ser Ser Ile Phe Tyr Thr Asn Thr Val Pro Leu Leu Asn Pro Leu		
275	280	285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Asp Ala Leu Ile Lys Thr		
290	295	300
Leu Ser Lys Arg Lys Arg		
305	310	

<210> 59
 <211> 952
 <212> DNA
 <213> Homo sapiens

<400> 59
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 caaaccagcc tgatcttcaa atacctctgt tctttgtgtt tctaataatg tatattgtta 120
 ctgcattagg aaatttgtgt ttgataattc ttattgtact aaattcacac cttcacaccc 180
 ctatgtactt tttcctcttt aacttgtcct tcatagacct ctgctactct actgtgttca 240
 ctccaaaaat gctgatgaac tttatactga gcaagaatgc aatttcttac atgggatgtt 300
 taaccagct atatttcttc tgcttttttg tcatttctga gtgttatgtg ttgacttcaa 360
 tggcttatga tcgctatgtg gccatctgta atccactctt gtacacgggt gccatgtccc 420
 ctaaattgtg tttgaacctt atgcttggt catatgcaat ggcattttct ggtgccatgg 480
 ctcacacggg atgcatgctg agactgacct tctgtgatgc taacaccatc aaccactact 540
 tctgtgacat cctccctgtg atgcagctct cctgcaccag cacctatgtc aatgagcttg 600
 tagttttcat tgttgtgggc atcaatatca ttgtgccaag catcactatc ttcattctct 660
 atggcttcat cctctccagc atttttcaca tcaagtccaa tgaaggcagg tccaaggcct 720
 tcagcacctg cagttcccat ataattgcag tttgtctctt ctttggatca ggtgcattta 780
 tgtatctcaa accatcttct tcttcatcta tggatcaagg gaaaacctct tctgtgtttt 840
 atacaaatgt ggttcccatg atgaatccct taatctacag ttttaaggaac aaagatgtca 900
 agatagccct gagaaaaacc ctgagcagat ggaaattttg aaaggagaca ac 952

<210> 60

<211> 310

<212> PRT

<213> Homo sapiens

<400> 60

Met Ala Ser Ala Asn Val Ser Leu Val Thr Glu Phe Ile Leu Val Gly
1 5 10 15

Leu Thr Asn Gln Pro Asp Leu Gln Ile Pro Leu Phe Phe Val Phe Leu
20 25 30

Ile Met Tyr Ile Val Thr Ala Leu Gly Asn Leu Cys Leu Ile Ile Leu
35 40 45

Ile Val Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe
50 55 60

Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Thr Val Phe Thr Pro Lys
65 70 75 80

Met Leu Met Asn Phe Ile Leu Ser Lys Asn Ala Ile Ser Tyr Met Gly
85 90 95

Cys Leu Thr Gln Leu Tyr Phe Phe Cys Phe Phe Val Ile Ser Glu Cys
100 105 110

Tyr Val Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
115 120 125

Pro Leu Leu Tyr Thr Val Ala Met Ser Pro Lys Leu Cys Leu Asn Leu
130 135 140

Met Leu Gly Thr Tyr Ala Met Ala Phe Ser Gly Ala Met Ala His Thr
145 150 155 160

Gly Cys Met Leu Arg Leu Thr Phe Cys Asp Ala Asn Thr Ile Asn His
165 170 175

Tyr Phe Cys Asp Ile Leu Pro Val Met Gln Leu Ser Cys Thr Ser Thr
180 185 190

Tyr Val Asn Glu Leu Val Val Phe Ile Val Val Gly Ile Asn Ile Ile
195 200 205

Val Pro Ser Ile Thr Ile Phe Ile Ser Tyr Gly Phe Ile Leu Ser Ser
210 215 220

Ile Phe His Ile Lys Ser Asn Glu Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240

Cys Ser Ser His Ile Ile Ala Val Cys Leu Phe Phe Gly Ser Gly Ala
 245 250 255

Phe Met Tyr Leu Lys Pro Ser Ser Ser Ser Met Asp Gln Gly Lys
 260 265 270

Thr Ser Ser Val Phe Tyr Thr Asn Val Val Pro Met Met Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Ile Ala Leu Arg Lys Thr
 290 295 300

Leu Ser Arg Trp Lys Phe
 305 310

<210> 61
 <211> 943
 <212> DNA
 <213> Homo sapiens

<400> 61
 aatggccctg gaaaatgctt ccttggtcac tgagttcatc ttgatggggt taacaaacag 60
 acctgacctt caaatacccc tggttctact ctttctgggt atgtacgtga tagctacatt 120
 ggggaattta gctttgatca tgctgattat tctgaattct caccttcaca ctcctatgta 180
 ttttttcttc cttaacttgt cctgcataga ccttttttat tgttcagtca ttacacctaa 240
 aatgctgatg aactttgtac taaagaaaaa tgttatttct tatgagggat gcatggccca 300
 gttctatttc tttgccttct ttgcaatttc tgaatgttat gtgctgacaa caatggccta 360
 tgatcgctat gtggccattt gcaatccact cttgtacaac attgtaatgt ctcctaagtt 420
 gtgttcttat cttatgatgg gtacatatatt gatgggggtt tctggtgcca tgatccatac 480
 tggatgtatc ctaagactga cattctgtga taaaaacacc atcaatcact atttctgtga 540
 catcctccct ttgctccaga tctcctgcac cagtacctat gttaatgaga tagagttggt 600
 cattgtagca ggaaaggata ttattgttcc cactgtaatc atctttacct cttacggcgt 660
 tatcctctcc agcatcctca aaataagctc cacagcagga atgtccaaag ccttcagcac 720
 atgtagctct cacataatcg ctctttgtct gttctttgga tcatgtacat ttatgtatct 780
 aaaaccctcc tcagttgagt ctatggacca ggggaaaata tcttctgtct ttataacat 840
 tgttgtcccc ctgatgaatc cattaatcta tagccttagg aacaaagatg ttaaaattgc 900
 tataaaaaaa actataacca aaggaaagtt ttaatcagaa ttt 943

<210> 62
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 62

Met Ala Leu Glu Asn Ala Ser Leu Val Thr Glu Phe Ile Leu Met Gly
1 5 10 15

Leu Thr Asn Arg Pro Asp Leu Gln Ile Pro Leu Phe Leu Leu Phe Leu
20 25 30

Val Met Tyr Val Ile Ala Thr Leu Gly Asn Leu Ala Leu Ile Met Leu
35 40 45

Ile Ile Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Leu
50 55 60

Asn Leu Ser Cys Ile Asp Leu Phe Tyr Cys Ser Val Ile Thr Pro Lys
65 70 75 80

Met Leu Met Asn Phe Val Leu Lys Lys Asn Val Ile Ser Tyr Glu Gly
85 90 95

Cys Met Ala Gln Phe Tyr Phe Phe Ala Phe Phe Ala Ile Ser Glu Cys
100 105 110

Tyr Val Leu Thr Thr Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
115 120 125

Pro Leu Leu Tyr Asn Ile Val Met Ser Pro, Lys Leu Cys Ser Tyr Leu
130 135 140

Met Met Gly Thr Tyr Leu Met Gly Phe Ser Gly Ala Met Ile His Thr
145 150 155 160

Gly Cys Ile Leu Arg Leu Thr Phe Cys Asp Lys Asn Thr Ile Asn His
165 170 175

Tyr Phe Cys Asp Ile Leu Pro Leu Leu Gln Ile Ser Cys Thr Ser Thr
180 185 190

Tyr Val Asn Glu Ile Glu Leu Phe Ile Val Ala Gly Lys Asp Ile Ile
195 200 205

Val Pro Thr Val Ile Ile Phe Thr Ser Tyr Gly Phe Ile Leu Ser Ser
210 215 220

Ile Leu Lys Ile Ser Ser Thr Ala Gly Met Ser Lys Ala Phe Ser Thr
225 230 235 240

Cys Ser Ser His Ile Ile Ala Leu Cys Leu Phe Phe Gly Ser Cys Thr
245 250 255

Phe Met Tyr Leu Lys Pro Ser Ser Val Glu Ser Met Asp Gln Gly Lys
 260 265 270

Ile Ser Ser Val Phe Tyr Asn Ile Val Val Pro Leu Met Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Ile Ala Ile Lys Lys Thr
 290 295 300

Ile Thr Lys Gly Lys Phe
 305 310

<210> 63
 <211> 953
 <212> DNA
 <213> Homo sapiens

<400> 63
 aatggtcgtg acaaatggct ctttggtaac agaattcatt cttttggggg taacagataa 60
 ccctgacctc caaatacccc tcttttttagt tttcctagta atgtatatga taactgcctt 120
 tgggaatttg accttgatcc tcctaactgt gctgaactct caccttcata cccctatgta 180
 ctttttcctc ttttaacttgt cttcataga cctctgctat tcttctgttg ttacacccaa 240
 attgctgatg aactttgtac taaagaagaa tattattggg ttgcgggat gtatgactca 300
 actctacttc ttctgttttt ttgttatctc tgaatgttat gtctgacag caatggccta 360
 tgatcgctat gtggctatct gcaatccact catgtataat gttaccatgt cccctaaagt 420
 ctgttcctat cttatgcttg gtccatattt gatgggattt tctgatgcca tgatccatac 480
 tggatgcac ctgagactga ctttctgtga tgggaacacc atcaatcact acttctgtga 540
 tcttctgcct ttgatgcagc tttcctgcac aagcacctat ataaatgagg tagagatttt 600
 cattgtaggg ggaaaagata tcaactgtgcc cagtattgtc atcatcattt cttatggcct 660
 catcctctct aatattctcc aaataaaatc cactgggggc agatcaaaag ccttcaaac 720
 ctgcagttct catataattg ctgtttctct gttttttggg tcatgtgcat ttatgtactt 780
 aaaaccccc tcagctggat ctttgaatga ggggaaagta tcttctgtct tctataccat 840
 tgtgggtccc atgatgaacc ctttaatcta cagtttgaga aataaagatg ttaaacttgc 900
 cctgagaaaa actttgagca ggagaaagtt ttaatgataa atttattatc ttt 953

<210> 64
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 64
 Met Val Val Thr Asn Gly Ser Leu Val Thr Glu Phe Ile Leu Leu Gly
 1 5 10 15

Leu Thr Asp Asn Pro Asp Leu Gln Ile Pro Leu Phe Leu Val Phe Leu

275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Leu Ala Leu Arg Lys Thr
 290 295 300

 Leu Ser Arg Arg Lys Phe
 305 310

<210> 65
 <211> 954
 <212> DNA
 <213> Homo sapiens

<400> 65
 caaatggcaa caaaaaatga ctcttcagtg tctgagttta ttcttatggg actgacagat 60
 caacctgagc tccagttgcc cctgtttttc ctgttcttgc tgaaccatac tggttatagt 120
 gtgggtaatt tgagcttaat gagtcttatt atcttaaact ccaatctcca cactcctatg 180
 tactttttcc ttttcaatct gtccttcatt gatttttgtt attcatttgt ttttacaccc 240
 aaaatgctga tgagttttgt ttcagagaag aatatcatcc cttttacagg atgcatgact 300
 cagctgtttt tcttctgctt ttttgcccat tctgagagtt ggggtgctgac agtcatggcc 360
 tatgatcgct atgtggccat ttgtaagcct ttactgtaca aggcctatcat gttacctagg 420
 atctgttgct tgctgatgtt tgtgtcatat ttgatagggt ttgctagtgc catggttctg 480
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 actgctgtgg tgggtacagc tatcatttta tgtagtctga ttatcttcat ctcatatgct 660
 atgatccttt tcaatatcgt tcatatgtca tcaggtaagg gttgggtccaa agccctgggc 720
 acttgtgggt cccacatcat aactgttagt ttcttctatg gatctgggct ccttgcttat 780
 gtcaagccat catctgctga gactgtaggt caaggaaaat ttttctcagt attttataca 840
 tttttggtgc ccatgctgaa tccccttatt tacagcctca ggaataagga tgtcaaagtt 900
 gctgtgaaga aaaccataaa gagaatcaca agttaattga aacaatttga gctg 954

<210> 66
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 66
 Met Ala Thr Lys Asn Asp Ser Ser Val Ser Glu Phe Ile Leu Met Gly
 1 5 10 15

 Leu Thr Asp Gln Pro Glu Leu Gln Leu Pro Leu Phe Phe Leu Phe Leu
 20 25 30

 Leu Asn His Thr Val Ile Val Val Gly Asn Leu Ser Leu Met Ser Leu
 35 40 45

Ile	Ile	Leu	Asn	Ser	Asn	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Phe	50	55	60	
Asn	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Tyr	Ser	Phe	Val	Phe	Thr	Pro	Lys	65	70	75	80
Met	Leu	Met	Ser	Phe	Val	Ser	Glu	Lys	Asn	Ile	Ile	Pro	Phe	Thr	Gly	85	90	95	
Cys	Met	Thr	Gln	Leu	Phe	Phe	Phe	Cys	Phe	Phe	Ala	His	Ser	Glu	Ser	100	105	110	
Trp	Val	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	115	120	125	
Pro	Leu	Leu	Tyr	Lys	Ala	Ile	Met	Leu	Pro	Arg	Ile	Cys	Cys	Leu	Leu	130	135	140	
Met	Phe	Val	Ser	Tyr	Leu	Ile	Gly	Phe	Ala	Ser	Ala	Met	Val	Leu	Ala	145	150	155	160
Gly	Leu	Met	Ile	Arg	Leu	Asn	Phe	Cys	Asn	Asn	Asn	Ile	Ile	Asn	His	165	170	175	
Tyr	Met	Cys	Asp	Ile	Phe	Pro	Val	Leu	Arg	Ile	Ser	Cys	Ser	Asn	Thr	180	185	190	
Tyr	Leu	Asn	Glu	Leu	Val	Ser	Thr	Ala	Val	Val	Gly	Thr	Ala	Ile	Ile	195	200	205	
Leu	Cys	Ser	Leu	Ile	Ile	Phe	Ile	Ser	Tyr	Ala	Met	Ile	Leu	Phe	Asn	210	215	220	
Ile	Val	His	Met	Ser	Ser	Gly	Lys	Gly	Trp	Ser	Lys	Ala	Leu	Gly	Thr	225	230	235	240
Cys	Gly	Ser	His	Ile	Ile	Thr	Val	Ser	Phe	Phe	Tyr	Gly	Ser	Gly	Leu	245	250	255	
Leu	Ala	Tyr	Val	Lys	Pro	Ser	Ser	Ala	Glu	Thr	Val	Gly	Gln	Gly	Lys	260	265	270	
Phe	Phe	Ser	Val	Phe	Tyr	Thr	Phe	Leu	Val	Pro	Met	Leu	Asn	Pro	Leu	275	280	285	
Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Val	Ala	Val	Lys	Lys	Thr	290	295	300	

Ile Lys Arg Ile Thr Ser
305 310

<210> 67
<211> 958
<212> DNA
<213> Homo sapiens

<400> 67
atgaaagtca tgaagcaa at gggttacagaa agtaattctt cagtgactga gttcattctt 60
atgggattaa cagttcaaaa agagctccag ttgcctctgt tcatcctatt cttgttaa ac 120
tacacagcca ctgtggtagg aaacctgagc ttaatgaatc tcatttgcct aaattcacat 180
cttcacactc ccatgtactt tttcatcttc aatctgtcct gcattgattt ttgttattca 240
tttgttttcta accccacaat gctgaggagt tttgttacag agcagaacac catatcctat 300
gaaggatgca tgagtcaact atttttcttc tgcttttttg taaactctga atgttatgtg 360
ctgacagcca tggcctatga tcgctacgtg gccatctgtc atcccctcaa gtacacaact 420
gtcatgtctc ctaagatctg ctgtctgctg gtgtttgggt cttacttgat gggttttgct 480
gggtgccctga ctcatacagg gtttatgatc aggctcagtt tttgtaattc taacatcatc 540
aaccactaca tgtgtgacat ctttcccctc cttcagctct cttgtactag cacctatgtc 600
aacgagcttg tgagctctgc tgtagttgga acaattatca ttttatctag catcattatt 660
ttagtctcat atgctatgat cctttccaat atccttcata tgtcatcaag taaggggttg 720
tcaaaagccc tgggcacttg tgggtccac atcataactg ttagcctctt ttatgggtct 780
ggattgcttg cctatatcaa gccaacatct gctgagactg tggaccaggg gaaattttta 840
tcaatatttt acacccttgt ggtacccatg ctgaatcctc tcatttacag cctcagaaac 900
aaggatgtca aacttgctct gaagagaaca atgaaaagag tcacaacctg aatgaaca 958

<210> 68
<211> 316
<212> PRT
<213> Homo sapiens

<400> 68
Met Lys Val Met Lys Gln Met Val Thr Glu Ser Asn Ser Ser Val Thr
1 5 10 15
Glu Phe Ile Leu Met Gly Leu Thr Val Gln Lys Glu Leu Gln Leu Pro
20 25 30
Leu Phe Ile Leu Phe Leu Leu Asn Tyr Thr Ala Thr Val Val Gly Asn
35 40 45
Leu Ser Leu Met Asn Leu Ile Cys Leu Asn Ser His Leu His Thr Pro
50 55 60
Met Tyr Phe Phe Ile Phe Asn Leu Ser Cys Ile Asp Phe Cys Tyr Ser
65 70 75 80

Phe	Val	Ser	Asn	Pro	Thr	Met	Leu	Arg	Ser	Phe	Val	Thr	Glu	Gln	Asn	
				85					90					95		
Thr	Ile	Ser	Tyr	Glu	Gly	Cys	Met	Ser	Gln	Leu	Phe	Phe	Phe	Cys	Phe	
			100					105					110			
Phe	Val	Asn	Ser	Glu	Cys	Tyr	Val	Leu	Thr	Ala	Met	Ala	Tyr	Asp	Arg	
		115					120					125				
Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Lys	Tyr	Thr	Thr	Val	Met	Ser	Pro	
	130					135					140					
Lys	Ile	Cys	Cys	Leu	Leu	Val	Phe	Gly	Ser	Tyr	Leu	Met	Gly	Phe	Ala	
145					150				155						160	
Gly	Ala	Leu	Thr	His	Thr	Gly	Phe	Met	Ile	Arg	Leu	Ser	Phe	Cys	Asn	
				165				170						175		
Ser	Asn	Ile	Ile	Asn	His	Tyr	Met	Cys	Asp	Ile	Phe	Pro	Leu	Leu	Gln	
			180					185					190			
Leu	Ser	Cys	Thr	Ser	Thr	Tyr	Val	Asn	Glu	Leu	Val	Ser	Ser	Ala	Val	
		195					200					205				
Val	Gly	Thr	Ile	Ile	Ile	Leu	Ser	Ser	Ile	Ile	Ile	Leu	Val	Ser	Tyr	
	210					215					220					
Ala	Met	Ile	Leu	Ser	Asn	Ile	Leu	His	Met	Ser	Ser	Ser	Lys	Gly	Trp	
225					230				235						240	
Ser	Lys	Ala	Leu	Gly	Thr	Cys	Gly	Ser	His	Ile	Ile	Thr	Val	Ser	Leu	
				245				250						255		
Phe	Tyr	Gly	Ser	Gly	Leu	Leu	Ala	Tyr	Ile	Lys	Pro	Thr	Ser	Ala	Glu	
			260					265					270			
Thr	Val	Asp	Gln	Gly	Lys	Phe	Leu	Ser	Ile	Phe	Tyr	Thr	Leu	Val	Val	
		275					280					285				
Pro	Met	Leu	Asn	Pro	Leu	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	
		290				295					300					
Leu	Ala	Leu	Lys	Arg	Thr	Met	Lys	Arg	Val	Thr	Thr					
305					310					315						

<210> 69

<211> 975
 <212> DNA
 <213> Homo sapiens

<400> 69
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 agcaaccaga gctccagctg cctttcttct tcctgttctt gggaatctat gtggtctcca 120
 ttgtggggaa cctgggcttg attgttctga ttgttttgaa tcctcacctg cacaccccca 180
 tgtactactt tctcttcaac ctttccttca ttgatttctg ctactcctct gtcataaccc 240
 ccaaaatgct ggtgggtttt gtgaaacaga atatcatttc tcatgctgag tgcatagactc 300
 aactcttttt ctttgccttc tttgttattg atgaatgttg tattttgaca gcaatgtcct 360
 atgacagata tgtggccata tgtaagccat tgctttataa ggttaccatg tcctatcagg 420
 tctgcttcat gatgacagt agtgtgtaca tgatggggtt tgtgggtgcc atagcccaca 480
 caatttgcag gctgagactc accttctgtg atggcaacat cattaatcac tacatgtgtg 540
 acataccccc tctcctgaag ctctcctgca caaacacctc tgtcaatgag ctgggtggtt 600
 tcattgttgt ggggtgtcaat gtgataggac ctacattgat catctttact tcttatactt 660
 tgatcatttt caacatttca catatccgtt ccactgaagg cagatccaag gctattagta 720
 cctgtagctc gcacataata gctgtttcta ttttcttttg agcctcagca ttcatgtatc 780
 ttaagccttc tcctgttgga tctgtgggtg aagataaagt atctacggtt ttctacacca 840
 ttgtgggccc gatgttgaac cctttcatct acagtttgag gaacaaggat gtccacattg 900
 cactgcataa gactttgaag aaaagcatgc ttatctagat agaaactttt tttcttctag 960
 attcagatct tacat 975

<210> 70
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 70
 Met Ala Ser Gly Asn Asp Ser Thr Thr Val Lys Glu Phe Ile Leu Leu
 1 5 10 15
 Gly Leu Thr Gln Gln Pro Glu Leu Gln Leu Pro Phe Phe Phe Leu Phe
 20 25 30
 Leu Gly Ile Tyr Val Val Ser Ile Val Gly Asn Leu Gly Leu Ile Val
 35 40 45
 Leu Ile Val Leu Asn Pro His Leu His Thr Pro Met Tyr Tyr Phe Leu
 50 55 60
 Phe Asn Leu Ser Phe Ile Asp Phe Cys Tyr Ser Ser Val Ile Thr Pro
 65 70 75 80
 Lys Met Leu Val Gly Phe Val Lys Gln Asn Ile Ile Ser His Ala Glu
 85 90 95

Cys Met Thr Gln Leu Phe Phe Phe Ala Phe Phe Val Ile Asp Glu Cys			
100	105	110	
Cys Ile Leu Thr Ala Met Ser Tyr Asp Arg Tyr Val Ala Ile Cys Lys			
115	120	125	
Pro Leu Leu Tyr Lys Val Thr Met Ser Tyr Gln Val Cys Phe Met Met			
130	135	140	
Thr Val Ser Val Tyr Met Met Gly Phe Val Gly Ala Ile Ala His Thr			
145	150	155	160
Ile Cys Met Leu Arg Leu Thr Phe Cys Asp Gly Asn Ile Ile Asn His			
165	170	175	
Tyr Met Cys Asp Ile Pro Pro Leu Leu Lys Leu Ser Cys Thr Asn Thr			
180	185	190	
Ser Val Asn Glu Leu Val Val Phe Ile Val Val Gly Val Asn Val Ile			
195	200	205	
Gly Pro Thr Leu Ile Ile Phe Thr Ser Tyr Thr Leu Ile Ile Phe Asn			
210	215	220	
Ile Ser His Ile Arg Ser Thr Glu Gly Arg Ser Lys Ala Ile Ser Thr			
225	230	235	240
Cys Ser Ser His Ile Ile Ala Val Ser Ile Phe Phe Gly Ala Ser Ala			
245	250	255	
Phe Met Tyr Leu Lys Pro Ser Pro Val Gly Ser Val Gly Glu Asp Lys			
260	265	270	
Val Ser Thr Val Phe Tyr Thr Ile Val Gly Pro Met Leu Asn Pro Phe			
275	280	285	
Ile Tyr Ser Leu Arg Asn Lys Asp Val His Ile Ala Leu His Lys Thr			
290	295	300	
Leu Lys Lys Ser Met Leu Ile			
305	310		

<210> 71

<211> 964

<212> DNA

<213> Homo sapiens

<400> 71

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caaataacta tggaaaatga ctcttttgtg tctgaattta tccttatggg actgacagat 60
catcctgaac tccagttgtc cttgtttgtt ctctttttga tgaactacac agccattgtg 120
atgggaaact tgagcttaat gattctcatt ttcttgaatt caaaccttca caccctcatg 180
tactttttca tcttcaattt gtccttcatt gatttttgtt attcattcgt ctttaccctc 240
aagatgctaa tgagcttttt tttagagaaa aacaccatct ccttcagagg atgcatgact 300
cagctgttct tcttctgctt ttttgtgaac tctgagagtt atgtgctgac agccatggcc 360
tacgatcgct atgtggccat ctgtaagcct ttactataca agactatcat ggtacctagg 420
atctgttgct ttctgatgtt tgtttcatat ttgatagggt ttactagtgc catgatcctc 480
acaggcttaa tgtttaggct caacttttgt aataaccaca tcatcaatca ctacatgtgt 540
gatatcttcc ctgtcattca gatctcctgc agtgacacct atctcaatga gcttggttagt 600
actgctgtgg taggtacagg tatcatttta tgtagcctcc ttatcttaat gtcttatgct 660
ctgatccttt tcaatatcct taatatgtcc tcaggtaagg gttggtccaa agccatgggc 720
acttggtgct cccacatcat aaccgttagt ctcttttatg ggtctgggct ccttgcttat 780
gtcaagccat catctgctga gactgtgggc cagggaaaat ttttctcact gttttataca 840
tttctcgtgc ccatgctgaa tcctctcata tacagtctcc agaacaaaga tgtcaaagtt 900
gctgtgaaga aaaccttgaa gagaatctca aattgactca accactggca cttcacagaa 960
ccct
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<210> 72

<211> 308

<212> PRT

<213> Homo sapiens

<400> 72

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Met Glu Asn Asp Ser Phe Val Ser Glu Phe Ile Leu Met Gly Leu Thr
  1             5             10             15

Asp His Pro Glu Leu Gln Leu Ser Leu Phe Val Leu Phe Leu Met Asn
      20             25             30

Tyr Thr Ala Ile Val Met Gly Asn Leu Ser Leu Met Ile Leu Ile Phe
      35             40             45

Leu Asn Ser Asn Leu His Thr Pro Met Tyr Phe Phe Ile Phe Asn Leu
      50             55             60

Ser Phe Ile Asp Phe Cys Tyr Ser Phe Val Phe Thr Pro Lys Met Leu
      65             70             75             80

Met Ser Phe Phe Leu Glu Lys Asn Thr Ile Ser Phe Arg Gly Cys Met
      85             90             95

Thr Gln Leu Phe Phe Phe Cys Phe Phe Val Asn Ser Glu Ser Tyr Val
      100            105            110

Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
```

115	120	125
Leu Tyr Lys Thr Ile Met Val Pro Arg Ile Cys Cys Leu Leu Met Phe		
130	135	140
Val Ser Tyr Leu Ile Gly Phe Thr Ser Ala Met Ile Leu Thr Gly Leu		
145	150	155
Met Phe Arg Leu Asn Phe Cys Asn Asn His Ile Ile Asn His Tyr Met		
165	170	175
Cys Asp Ile Phe Pro Val Ile Gln Ile Ser Cys Ser Asp Thr Tyr Leu		
180	185	190
Asn Glu Leu Val Ser Thr Ala Val Val Gly Thr Gly Ile Ile Leu Cys		
195	200	205
Ser Leu Leu Ile Leu Met Ser Tyr Ala Leu Ile Leu Phe Asn Ile Leu		
210	215	220
Asn Met Ser Ser Gly Lys Gly Trp Ser Lys Ala Met Gly Thr Cys Gly		
225	230	235
Ser His Ile Ile Thr Val Ser Leu Phe Tyr Gly Ser Gly Leu Leu Ala		
245	250	255
Tyr Val Lys Pro Ser Ser Ala Glu Thr Val Gly Gln Gly Lys Phe Phe		
260	265	270
Ser Leu Phe Tyr Thr Phe Leu Val Pro Met Leu Asn Pro Leu Ile Tyr		
275	280	285
Ser Leu Gln Asn Lys Asp Val Lys Val Ala Val Lys Lys Thr Leu Lys		
290	295	300
Arg Ile Ser Asn		
305		

<210> 73

<211> 943

<212> DNA

<213> Homo sapiens

<400> 73

ctcctgtgct ttaaaatatg gttgctacaa acaatgtgac tgaaataatt ttcgtgggat 60
 tttccagaa ttggagtga cagagggtca tttctgtgat gtttctcctc atgtacacag 120
 ctgttgtgct gggcaatggc ctcattgtgg tgaccatcct ggccagcaaa gtgctcacct 180

```

cccccatgta tttctttctc agctacttat cctttgtgga gatctgctac tgttctgtca 240
tggtccccc aa gcttatcttt gactccttta tcaagaggaa agtcatttct ctcaagggct 300
gcctcacaca gatgttttcc ctccatttct ttggtggcac tgaggccttt ctcctgatgg 360
tgatggccta tgaccgctat gtggccatct gcaagccctt gcactacatg gccatcatga 420
accagcgaat gtgtggtctc ctcgtagga tagcatgggg cgggggcctg ctgcattctg 480
ttggggcaaac cttcctgatt ttccagctcc cgttctgtgg cccaacatc atggaccact 540
acttctgtga tgtccacca gtgctggagc tggcctgcgc agacaccttc ttcattagcc 600
tgctgatcat caccaatggc ggctccatct ccgtagtcag tttcttcgtg ctgatggctt 660
cctacctgat catcctgcac ttctgagaa gccacaactt ggaggggcag cacaaggccc 720
tctccacctg tgcctctcat gtcacagttg tcgacctgtt cttcatacct tgctccttgg 780
tctatattag gccctgtgtc accctccctg cagacaagat agttgctgta ttttatacag 840
tggtcacacc tctcttaaac cctgtgattt actccttcag gaatgctgaa gtgaaaaatg 900
ccatgaggag atttattggg ggaaaagtaa tttgagaaga gaa 943

```

<210> 74

<211> 305

<212> PRT

<213> Homo sapiens

<400> 74

```

Met Val Ala Thr Asn Asn Val Thr Glu Ile Ile Phe Val Gly Phe Ser
  1              5              10              15

```

```

Gln Asn Trp Ser Glu Gln Arg Val Ile Ser Val Met Phe Leu Leu Met
          20              25              30

```

```

Tyr Thr Ala Val Val Leu Gly Asn Gly Leu Ile Val Val Thr Ile Leu
    35              40              45

```

```

Ala Ser Lys Val Leu Thr Ser Pro Met Tyr Phe Phe Leu Ser Tyr Leu
    50              55              60

```

```

Ser Phe Val Glu Ile Cys Tyr Cys Ser Val Met Ala Pro Lys Leu Ile
    65              70              75              80

```

```

Phe Asp Ser Phe Ile Lys Arg Lys Val Ile Ser Leu Lys Gly Cys Leu
          85              90              95

```

```

Thr Gln Met Phe Ser Leu His Phe Phe Gly Gly Thr Glu Ala Phe Leu
    100              105              110

```

```

Leu Met Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
    115              120              125

```

```

His Tyr Met Ala Ile Met Asn Gln Arg Met Cys Gly Leu Leu Val Arg
    130              135              140

```

Ile Ala Trp Gly Gly Gly Leu Leu His Ser Val Gly Gln Thr Phe Leu
 145 150 155 160

Ile Phe Gln Leu Pro Phe Cys Gly Pro Asn Ile Met Asp His Tyr Phe
 165 170 175

Cys Asp Val His Pro Val Leu Glu Leu Ala Cys Ala Asp Thr Phe Phe
 180 185 190

Ile Ser Leu Leu Ile Ile Thr Asn Gly Gly Ser Ile Ser Val Val Ser
 195 200 205

Phe Phe Val Leu Met Ala Ser Tyr Leu Ile Ile Leu His Phe Leu Arg
 210 215 220

Ser His Asn Leu Glu Gly Gln His Lys Ala Leu Ser Thr Cys Ala Ser
 225 230 235 240

His Val Thr Val Val Asp Leu Phe Phe Ile Pro Cys Ser Leu Val Tyr
 245 250 255

Ile Arg Pro Cys Val Thr Leu Pro Ala Asp Lys Ile Val Ala Val Phe
 260 265 270

Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Val Ile Tyr Ser Phe Arg
 275 280 285

Asn Ala Glu Val Lys Asn Ala Met Arg Arg Phe Ile Gly Gly Lys Val
 290 295 300

Ile
 305

<210> 75

<211> 943

<212> DNA

<213> Homo sapiens

<400> 75

ctcctgtgct ttaaaatatg gttgctacaa acaatgtgac tgaaataatt ttctgtgggat 60
 tttcccagaa ttggagtgag cagaggggtca tttctgtgat gtttctcctc atgtacacag 120
 ctgttgtgct gggcaatggc ctcatgttggt tgaccatcct ggccagcaaa gtgctcacct 180
 ccccatgta tttctttctc agctacttat cctttgtgga gatctgctac tgttctgtca 240
 tggcccccaa gcttatcttt gactccttta tcaagaggaa agtcatttct ctcaagggct 300
 gcctcacaca gatgttttcc ctccatttct ttgggtggcac tgaggccttt ctctgatgg 360
 tgatggccta tgaccgctat gtggccatct gcaagccctt gcactacatg gccatcatga 420
 accagcgaat gtgtggtctc ctctgtgagga tagcatgggg cgggggcctg ctgcattctg 480

ttgggcaaac cttcctgatt ttccagctcc cgttctgtgg ccccaacatc atggaccact 540
 acttctgtga tgtccaccca gtgctggagc tggcctgcgc agacaccttc ttcattagcc 600
 tgctgatcat caccaatggc ggctccatct ccgtagtcag tttcttcgtg ctgatggctt 660
 cctacctgat catcctgcac ttcctgagaa gccacaactt ggaggggcag cacaaggccc 720
 tctccacctg tgctctcat gtcacagttg tcgacctgtt cttcatacct tgctccttgg 780
 tctatattag gccctgtgtc accctccctg cagacaagat agttgctgta ttttatacag 840
 tggtcacacc tctcttaaac cctgtgattt actccttcag gaatgctgaa gtgaaaaatg 900
 ccatgaggag atttattggg ggaaaagtaa tttgagaaga gaa 943

<210> 76

<211> 305

<212> PRT

<213> Homo sapiens

<400> 76

Met Val Ala Thr Asn Asn Val Thr Glu Ile Ile Phe Val Gly Phe Ser
 1 5 10 15

Gln Asn Trp Ser Glu Gln Arg Val Ile Ser Val Met Phe Leu Leu Met
 20 25 30

Tyr Thr Ala Val Val Leu Gly Asn Gly Leu Ile Val Val Thr Ile Leu
 35 40 45

Ala Ser Lys Val Leu Thr Ser Pro Met Tyr Phe Phe Leu Ser Tyr Leu
 50 55 60

Ser Phe Val Glu Ile Cys Tyr Cys Ser Val Met Ala Pro Lys Leu Ile
 65 70 75 80

Phe Asp Ser Phe Ile Lys Arg Lys Val Ile Ser Leu Lys Gly Cys Leu
 85 90 95

Thr Gln Met Phe Ser Leu His Phe Phe Gly Gly Thr Glu Ala Phe Leu
 100 105 110

Leu Met Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu
 115 120 125

His Tyr Met Ala Ile Met Asn Gln Arg Met Cys Gly Leu Leu Val Arg
 130 135 140

Ile Ala Trp Gly Gly Gly Leu Leu His Ser Val Gly Gln Thr Phe Leu
 145 150 155 160

Ile Phe Gln Leu Pro Phe Cys Gly Pro Asn Ile Met Asp His Tyr Phe
 165 170 175

Cys	Asp	Val	His	Pro	Val	Leu	Glu	Leu	Ala	Cys	Ala	Asp	Thr	Phe	Phe			
																180	185	190
Ile	Ser	Leu	Leu	Ile	Ile	Thr	Asn	Gly	Gly	Ser	Ile	Ser	Val	Val	Ser			
																195	200	205
Phe	Phe	Val	Leu	Met	Ala	Ser	Tyr	Leu	Ile	Ile	Leu	His	Phe	Leu	Arg			
																210	215	220
Ser	His	Asn	Leu	Glu	Gly	Gln	His	Lys	Ala	Leu	Ser	Thr	Cys	Ala	Ser			
																225	230	235
His	Val	Thr	Val	Val	Asp	Leu	Phe	Phe	Ile	Pro	Cys	Ser	Leu	Val	Tyr			
																245	250	255
Ile	Arg	Pro	Cys	Val	Thr	Leu	Pro	Ala	Asp	Lys	Ile	Val	Ala	Val	Phe			
																260	265	270
Tyr	Thr	Val	Val	Thr	Pro	Leu	Leu	Asn	Pro	Val	Ile	Tyr	Ser	Phe	Arg			
																275	280	285
Asn	Ala	Glu	Val	Lys	Asn	Ala	Met	Arg	Arg	Phe	Ile	Gly	Gly	Lys	Val			
																290	295	300

Ile
305

<210> 77
 <211> 961
 <212> DNA
 <213> Homo sapiens

<400> 77

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atccagctgt	gcagagtga	tgctttgtgg	tgtttctccc	cgtgtacctt	gccacgggtg	120
tgggcaatgg	cctcatcggt	ctgacggtea	gtatcagcaa	gagtctggat	tctcccatgt	180
acttcttctt	tagctgcttg	tccttggtgg	agatcagtta	ttctccact	atgccccta	240
aattcatcat	agacttactt	gccaagatta	aaaccatctc	tctggaaggc	tgtctgactc	300
agatattctt	cttccacttc	tttgggggtg	ctgagatcct	tttgattgtg	gtgatggcct	360
atgattgcta	cgtggccatt	tgcaagcctc	ttcattatat	gaacattatc	agtcgtcaac	420
tgtgtcacct	tctggtggct	ggttcctggc	tggggggcct	ttgtcactcc	ataattcaga	480
ttctcgttat	catccaattg	cccttctgtg	gtcccaatgt	gattgaccac	tatttctgtg	540
acctccagcc	tttattcaag	cttgccctgca	ctgacacctt	catggagggg	gttattgtgt	600
tggccaacag	tggattattc	tctgtcttct	ccttctcat	cttggtgtcc	tcttatattg	660
tcattctggt	caacttgagg	aaccattctg	cagaggggag	gcacaaagcc	ctctccacct	720
gtgcttctca	catcacagtg	gtcatcttgt	tttttgacc	tgctatcttc	ctctacatgc	780

gaccttcttc cactttcact gaagataaac ttgtggctgt attctacacg gtcatcaccc 840
ccatgctgaa ccccatcatt tacacactca ggaatgcaga ggtgaaaatc gccataagaa 900
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a 961

<210> 78

<211> 309

<212> PRT

<213> Homo sapiens

<400> 78

Met Ala Ser Thr Ser Asn Val Thr Glu Leu Ile Phe Thr Gly Leu Phe
1 5 10 15

Gln Asp Pro Ala Val Gln Ser Val Cys Phe Val Val Phe Leu Pro Val
20 25 30

Tyr Leu Ala Thr Val Val Gly Asn Gly Leu Ile Val Leu Thr Val Ser
35 40 45

Ile Ser Lys Ser Leu Asp Ser Pro Met Tyr Phe Phe Leu Ser Cys Leu
50 55 60

Ser Leu Val Glu Ile Ser Tyr Ser Ser Thr Ile Ala Pro Lys Phe Ile
65 70 75 80

Ile Asp Leu Leu Ala Lys Ile Lys Thr Ile Ser Leu Glu Gly Cys Leu
85 90 95

Thr Gln Ile Phe Phe Phe His Phe Phe Gly Val Ala Glu Ile Leu Leu
100 105 110

Ile Val Val Met Ala Tyr Asp Cys Tyr Val Ala Ile Cys Lys Pro Leu
115 120 125

His Tyr Met Asn Ile Ile Ser Arg Gln Leu Cys His Leu Leu Val Ala
130 135 140

Gly Ser Trp Leu Gly Gly Phe Cys His Ser Ile Ile Gln Ile Leu Val
145 150 155 160

Ile Ile Gln Leu Pro Phe Cys Gly Pro Asn Val Ile Asp His Tyr Phe
165 170 175

Cys Asp Leu Gln Pro Leu Phe Lys Leu Ala Cys Thr Asp Thr Phe Met
180 185 190

Glu Gly Val Ile Val Leu Ala Asn Ser Gly Leu Phe Ser Val Phe Ser
 195 200 205
 Phe Leu Ile Leu Val Ser Ser Tyr Ile Val Ile Leu Val Asn Leu Arg
 210 215 220
 Asn His Ser Ala Glu Gly Arg His Lys Ala Leu Ser Thr Cys Ala Ser
 225 230 235 240
 His Ile Thr Val Val Ile Leu Phe Phe Gly Pro Ala Ile Phe Leu Tyr
 245 250 255
 Met Arg Pro Ser Ser Thr Phe Thr Glu Asp Lys Leu Val Ala Val Phe
 260 265 270
 Tyr Thr Val Ile Thr Pro Met Leu Asn Pro Ile Ile Tyr Thr Leu Arg
 275 280 285
 Asn Ala Glu Val Lys Ile Ala Ile Arg Arg Leu Trp Ser Lys Lys Glu
 290 295 300
 Asn Pro Gly Arg Glu
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<210> 79
 <211> 954
 <212> DNA
 <213> Homo sapiens

<400> 79
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 accctcagat ggagatcatc ttcttcgtgg tcttcctcat agtttacctg gttaatgtag 120
 tggggaatat tggatatgatt atcctgatta caacagacac tcagcttcac acacccatgt 180
 attttttctt ctgcaacctc tcctttgttg acctgggcta ctctcagcc attgccccca 240
 ggatgctggc tgacttccta acaaatcaca aagttatctc cttctccagc tgtgccaccc 300
 agtttgcttt ttttgtaggt tttgtggatg ctgagtgccta tgtcctggca gccatggcct 360
 atggctgcttt tgtggccatt tgtcgacccc tccactatag caccttcattg tccaagcagg 420
 tctgcttggc tctcatgctg ggctcttacc tggctgggtct agtgagttaa gtagcccaca 480
 ctaccctcac cttcagcctg agttactgtg gttccaatat catcaatcat ttcttctgctg 540
 aaatcccacc actcttgagg ctctcttgct cagacaccta catcagtgag atcttgctct 600
 tcagtctgtg tggcttcatt gaattcagca ccatcctcat catcttcac tcctatacct 660
 ttatccttgt tgcaatcatc agaatgcgtt cagctgaagg ccgccttaag gctttctcca 720
 cctgcggggtc tcaccttact ggcacacccc tcttctatgg cacagtcatg tttatgtacc 780
 tgaggccaac atccagctac tccctggacc aagacaagtg ggcctctgtg ttctacacgg 840
 ttatcatccc catgttaa at ccttgatct acagtttgct gaacaaggat gtgaaagctg 900
 ctttcaaaaa gctaattgga aaaaaatctc aataataaca caaatgaaa atct 954

<210> 80
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 80

Met	Asp	Lys	Glu	Asn	Ser	Ser	Met	Val	Thr	Glu	Phe	Ile	Phe	Met	Gly
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Ile	Thr	Gln	Asp	Pro	Gln	Met	Glu	Ile	Ile	Phe	Phe	Val	Val	Phe	Leu
		20						25					30		
Ile	Val	Tyr	Leu	Val	Asn	Val	Val	Gly	Asn	Ile	Gly	Met	Ile	Ile	Leu
		35					40					45			
Ile	Thr	Thr	Asp	Thr	Gln	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Cys
	50					55					60				
Asn	Leu	Ser	Phe	Val	Asp	Leu	Gly	Tyr	Ser	Ser	Ala	Ile	Ala	Pro	Arg
65					70				75					80	
Met	Leu	Ala	Asp	Phe	Leu	Thr	Asn	His	Lys	Val	Ile	Ser	Phe	Ser	Ser
				85					90					95	
Cys	Ala	Thr	Gln	Phe	Ala	Phe	Phe	Val	Gly	Phe	Val	Asp	Ala	Glu	Cys
		100						105					110		
Tyr	Val	Leu	Ala	Ala	Met	Ala	Tyr	Gly	Arg	Phe	Val	Ala	Ile	Cys	Arg
	115					120					125				
Pro	Leu	His	Tyr	Ser	Thr	Phe	Met	Ser	Lys	Gln	Val	Cys	Leu	Ala	Leu
	130					135					140				
Met	Leu	Gly	Ser	Tyr	Leu	Ala	Gly	Leu	Val	Ser	Leu	Val	Ala	His	Thr
145					150					155				160	
Thr	Leu	Thr	Phe	Ser	Leu	Ser	Tyr	Cys	Gly	Ser	Asn	Ile	Ile	Asn	His
				165					170					175	
Phe	Phe	Cys	Glu	Ile	Pro	Pro	Leu	Leu	Ala	Leu	Ser	Cys	Ser	Asp	Thr
			180					185					190		
Tyr	Ile	Ser	Glu	Ile	Leu	Leu	Phe	Ser	Leu	Cys	Gly	Phe	Ile	Glu	Phe
	195						200					205			
Ser	Thr	Ile	Leu	Ile	Ile	Phe	Ile	Ser	Tyr	Thr	Phe	Ile	Leu	Val	Ala
	210					215					220				

Ile Ile Arg Met Arg Ser Ala Glu Gly Arg Leu Lys Ala Phe Ser Thr
 225 230 235 240

Cys Gly Ser His Leu Thr Gly Ile Thr Leu Phe Tyr Gly Thr Val Met
 245 250 255

Phe Met Tyr Leu Arg Pro Thr Ser Ser Tyr Ser Leu Asp Gln Asp Lys
 260 265 270

Trp Ala Ser Val Phe Tyr Thr Val Ile Ile Pro Met Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Ala Ala Phe Lys Lys Leu
 290 295 300

Ile Gly Lys Lys Ser Gln
 305 310

<210> 81
 <211> 981
 <212> DNA
 <213> Homo sapiens

<400> 81
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 gggaaatttg accttgatca ttttaatttg gctaaattct cacctccaca cacccatgta 180
 ctttctcttg ttttaacttg ctttcattga tctctgttat tcttctgtga ttacacccaa 240
 aatgctgatg agctttatac aaaaaaagaa tattatctct tatacagggt gtatgatcca 300
 gttatacttc ttttgctttt ttgtcatttc tgagtgttat gtgctgacct caatggccta 360
 tgatcgctat gtggcaatct gcaatccact gttgtataat gttaccttgt cttctaaggt 420
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 tggatgtatt ctaagactga cattttgtga tggaaatacc atcaaccact atttttgtga 540
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 cattgtagca ggaaaagaca taattgtacc cactatcatc atctttatct cttatggctt 660
 catcctcttc agtgttctca aaataaaatc cactgaaagc aggtctaaag ctttcagcac 720
 ctgcagttcc catatgcttg ctgtttctct cttctttgga tcaggtgcat tcatgtatct 780
 taaacctacc tcagctctat ctatcaataa ggggaaattc tcttctcttt ttataacat 840
 tgtggttccc atgatgaacc ctttaattta cagcttgagg aacaaagatg ttaaagctgc 900
 cctgagaaag actttgaaca ggagaatatt ttcatacata actggatata tctgagccta 960
 cacttaaaca atagagagat t 981

<210> 82
 <211> 312
 <212> PRT

<213> Homo sapiens

<400> 82

Met Thr Phe Glu Asn Ala Ser Met Val Ile Glu Phe Ile Leu Leu Gly
1 5 10 15

Ile Thr Asp Gln Pro Asp Leu Lys Ile Pro Phe Phe Leu Leu Phe Phe
20 25 30

Val Gly Tyr Met Ile Thr Val Leu Gly Asn Leu Thr Leu Ile Ile Leu
35 40 45

Ile Gly Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Leu Leu Phe
50 55 60

Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Ser Val Ile Thr Pro Lys
65 70 75 80

Met Leu Met Ser Phe Ile Gln Lys Lys Asn Ile Ile Ser Tyr Thr Gly
85 90 95

Cys Met Ile Gln Leu Tyr Phe Phe Cys Phe Phe Val Ile Ser Glu Cys
100 105 110

Tyr Val Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
115 120 125

Pro Leu Leu Tyr Asn Val Thr Leu Ser Ser Lys Val Cys Cys Tyr Leu
130 135 140

Met Leu Gly Ser Tyr Phe Met Gly Phe Ser Gly Ala Met Ile His Thr
145 150 155 160

Gly Cys Ile Leu Arg Leu Thr Phe Cys Asp Gly Asn Thr Ile Asn His
165 170 175

Tyr Phe Cys Asp Leu Leu Pro Leu Leu Gln Ile Ser Cys Thr Ser Thr
180 185 190

Tyr Ile Asn Glu Ile Glu Leu Phe Ile Val Ala Gly Lys Asp Ile Ile
195 200 205

Val Pro Thr Ile Ile Ile Phe Ile Ser Tyr Gly Phe Ile Leu Phe Ser
210 215 220

Val Leu Lys Ile Lys Ser Thr Glu Ser Arg Ser Lys Ala Phe Ser Thr
225 230 235 240

Cys Ser Ser His Met Leu Ala Val Ser Leu Phe Phe Gly Ser Gly Ala
 245 250 255

Phe Met Tyr Leu Lys Pro Thr Ser Ala Leu Ser Ile Asn Lys Gly Lys
 260 265 270

Phe Ser Ser Leu Phe Tyr Thr Ile Val Val Pro Met Met Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Ala Ala Leu Arg Lys Thr
 290 295 300

Leu Asn Arg Arg Ile Phe Ser Ser
 305 310

<210> 83
 <211> 936
 <212> DNA
 <213> Homo sapiens

<400> 83
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 ggggaattta tctttgataa tattaactgt gttgaattct caccttcaca cccctatgta 180
 ctttttcctc ttttaacttgt cttttgtaga cttctgctat tcttctgtgt tcaactccaca 240
 aatggtgatg aactttataa caaggaagaa tacaatttct tacatggaat gtatgagcca 300
 actttatttc ttttggtttt ttgttatttc tgagtgttat gtgttgactt caatggccta 360
 tgatcgctat gtggccattt gtaaaccact gctgtataat cttgtcatgt cctctaaatt 420
 atgtttgaac ctaatgcttg tttcctactt tattgcattt tctgagtctg tggctcacac 480
 tgtttgcata atgagactga acttctgtga tgccaacaaa atcaaccact acttctgtga 540
 tattccacct ttgctccaac tttcctgtac aaccacatat atcaacaagc ttgtagtttt 600
 tgttgcttct agcatcaata tcattgttcc catttcaact atatttattt cctatggttt 660
 tattctctcc agcatctttc acatccattc ttctgaaggc aggtccaaag ctttcagcac 720
 ctgtagctca cacatcattg ctgcttttct gttctttggt tcaggtgcat ttatgtattt 780
 ccaaccatcc tcagctgagt ctatggatga aggaaaaatc tcttctgtct ttataactaa 840
 tgtgattccc atgatgaatc ctctactcta cagcttgagg aacaaagaca taaaagtggc 900
 tctgaggaaa accctgagca agaggaacat ttaact 936

<210> 84
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 84
 Met Asp Ser Val Asn Ile Ser Leu Val Thr Glu Phe Ile Leu Val Gly
 1 5 10 15

Leu Thr Asp Lys Pro Tyr Leu Gln Ile Pro Leu Phe Phe Ile Phe Leu
 20 25 30
 Ala Met Tyr Leu Val Thr Ala Leu Gly Asn Leu Ser Leu Ile Ile Leu
 35 40 45
 Thr Val Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe
 50 55 60
 Asn Leu Ser Phe Val Asp Phe Cys Tyr Ser Ser Val Phe Thr Pro Gln
 65 70 75 80
 Met Leu Met Asn Phe Ile Thr Arg Lys Asn Thr Ile Ser Tyr Met Glu
 85 90 95
 Cys Met Ser Gln Leu Tyr Phe Phe Cys Phe Phe Val Ile Ser Glu Cys
 100 105 110
 Tyr Val Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys
 115 120 125
 Pro Leu Leu Tyr Asn Leu Val Met Ser Ser Lys Leu Cys Leu Asn Leu
 130 135 140
 Met Leu Val Ser Tyr Phe Ile Ala Phe Ser Glu Ser Val Ala His Thr
 145 150 155 160
 Val Cys Ile Met Arg Leu Asn Phe Cys Asp Ala Asn Lys Ile Asn His
 165 170 175
 Tyr Phe Cys Asp Ile Pro Pro Leu Leu Gln Leu Ser Cys Thr Thr Thr
 180 185 190
 Tyr Ile Asn Lys Leu Val Val Phe Val Ala Ser Ser Ile Asn Ile Ile
 195 200 205
 Val Pro Ile Ser Thr Ile Phe Ile Ser Tyr Gly Phe Ile Leu Ser Ser
 210 215 220
 Ile Phe His Ile His Ser Ser Glu Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ser His Ile Ile Ala Ala Phe Leu Phe Phe Gly Ser Gly Ala
 245 250 255
 Phe Met Tyr Phe Gln Pro Ser Ser Ala Glu Ser Met Asp Glu Gly Lys
 260 265 270

Ile Ser Ser Val Phe Tyr Thr Asn Val Ile Pro Met Met Asn Pro Leu
 275 280 285

Leu Tyr Ser Leu Arg Asn Lys Asp Ile Lys Val Ala Leu Arg Lys Thr
 290 295 300

Leu Ser Lys Arg Asn Ile
 305 310

<210> 85
 <211> 946
 <212> DNA
 <213> Homo sapiens

<400> 85
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 gtgctgggga acctgggcat gatcatcctg atcctgctca gctccacact gcacaccccc 180
 atgtactttt tcctcagcag cctgtccttc attgacctct gttactccac tgttattacc 240
 ccgaagatgt tgggtgaactt tgtggcaaag aagaatgtca tctcctatga ggaatgtatg 300
 actcagctct atttcttcct tgcttttggt atatctgagt gtcacatggt ggctgcaatg 360
 gcatatgacc gctatgttgc catttgcaat cccttgcttt acaatgtcac tatgtcttac 420
 caaatctggt cctggatggg aggtggggta tatggcatgg gtttaattgg tgcagcagtt 480
 catactctct gcatgctaag agtggttttc tgtaaggcta atataataaa ccattacttc 540
 tgtgatcttt tcccattgat ggagcttgcc tgctccagta cttatgtcaa tgaggtagta 600
 ctccgtgtgc tcagtgtctt caatatcttt attccaacat tgactatctt ggggtcttac 660
 atcttcatca tcattagtat cctccgtatc aaatccacgg aaggcagatt caaagccttc 720
 agcacatgta gctccactt ctctgcctgt tctgtcttct ttgggtccct ggcattcatg 780
 tatctgcagc ccttctctgt cagctccaaa gacaaaggca aagtgtcctc tgtgttttac 840
 actactattg tgcccatgct gaaccccatg atctatagcc tgaggaatag ggatgttaaa 900
 cttgctctaa ataagttatt tcaaaagaaa ttccatgtgt aaagaa 946

<210> 86
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 86
 Met Ala Asp Thr Asn His Ser Thr Val Thr Glu Phe Ile Leu Ala Gly
 1 5 10 15

Leu Thr Asp Lys Pro Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe Leu
 20 25 30

Gly Ile Tyr Leu Leu Thr Val Leu Gly Asn Leu Gly Met Ile Ile Leu

35	40	45
Ile Leu Leu Ser Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Ser		
50	55	60
Ser Leu Ser Phe Ile Asp Leu Cys Tyr Ser Thr Val Ile Thr Pro Lys		
65	70	75 80
Met Leu Val Asn Phe Val Ala Lys Lys Asn Val Ile Ser Tyr Glu Glu		
	85	90 95
Cys Met Thr Gln Leu Tyr Phe Phe Leu Ala Phe Val Ile Ser Glu Cys		
	100	105 110
His Met Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn		
	115	120 125
Pro Leu Leu Tyr Asn Val Thr Met Ser Tyr Gln Ile Cys Ser Trp Met		
	130	135 140
Val Gly Gly Val Tyr Gly Met Gly Leu Ile Gly Ala Ala Val His Thr		
145	150	155 160
Leu Cys Met Leu Arg Val Val Phe Cys Lys Ala Asn Ile Ile Asn His		
	165	170 175
Tyr Phe Cys Asp Leu Phe Pro Leu Met Glu Leu Ala Cys Ser Ser Thr		
	180	185 190
Tyr Val Asn Glu Val Val Leu Leu Cys Leu Ser Ala Phe Asn Ile Phe		
	195	200 205
Ile Pro Thr Leu Thr Ile Leu Gly Ser Tyr Ile Phe Ile Ile Ile Ser		
	210	215 220
Ile Leu Arg Ile Lys Ser Thr Glu Gly Arg Phe Lys Ala Phe Ser Thr		
225	230	235 240
Cys Ser Ser His Phe Ser Ala Val Ser Val Phe Phe Gly Ser Leu Ala		
	245	250 255
Phe Met Tyr Leu Gln Pro Phe Ser Val Ser Ser Lys Asp Lys Gly Lys		
	260	265 270
Val Ser Ser Val Phe Tyr Thr Thr Ile Val Pro Met Leu Asn Pro Met		
	275	280 285
Ile Tyr Ser Leu Arg Asn Arg Asp Val Lys Leu Ala Leu Asn Lys Leu		

290

295

300

Phe Gln Lys Lys Phe His Val

305

310

<210> 87

<211> 950

<212> DNA

<213> Homo sapiens

<400> 87

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aatggctcta gtaaattggct caactgtgac tgaattcatt cttttgggat taacagacca 60
gcctggactc caaatgcctc ttttcttatt gtttctatta atgtacatga tcacagtatt 120
cggtaatttg actttgatat ttttaattct gttaaattct cacctacata ctcccatgta 180
tttttttctc ttgaatttat cttttgtaga tctctgttat tcttctgtga ttacacaaaa 240
aatgctgatg aattttatac taaagaagaa tcttatctct tatatgggat gtatgtccca 300
actctacttc ttttgTTTTT tcataatttc tgaatgttat gtactgggtg caatggccta 360
tgatcgctat gttgcaatct gtaatccact gttgtataac actgccatgt cccaagggt 420
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tggttgcatg ctcagactga gcttctgtga tggcaatata atcaaccact atttctgcga 540
tgtcctccct ttgctgcagc tctctgttac cagcacctat gtcaatgaga cagaaatttt 600
cattgtaggg ggaaaagaca tcattcttcc cagtgccatt atctttttct cttatggctt 660
cattctctcc aacattttcc aaataagata cactttgggc cggccaagg ccttcagcac 720
ttgcagttcc catataattg ctgtctctct gttctttgga tcatgtggat tcatgtacct 780
gaaaccttcc tctgctgtat ctattgatca aggaaaaata tcttccattt tttataccat 840
tgtggttcct atgatgaacc ccctaattta tagcttgaga aacaaagatg ttaaagttgc 900
cctaagaaag actttgagta ggaggaagtt tttaaaagta tagttgcaaa 950

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<210> 88

<211> 313

<212> PRT

<213> Homo sapiens

<400> 88

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Met Ala Leu Val Asn Gly Ser Thr Val Thr Glu Phe Ile Leu Leu Gly
  1              5              10              15

Leu Thr Asp Gln Pro Gly Leu Gln Met Pro Leu Phe Leu Leu Phe Leu
    20              25              30

Leu Met Tyr Met Ile Thr Val Phe Gly Asn Leu Thr Leu Ile Phe Leu
    35              40              45

Ile Leu Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Leu
    50              55              60

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Asn Leu Ser Phe Val Asp Leu Cys Tyr Ser Ser Val Ile Thr Pro Lys
 65 70 75 80
 Met Leu Met Asn Phe Ile Leu Lys Lys Asn Leu Ile Ser Tyr Met Gly
 85 90 95
 Cys Met Ser Gln Leu Tyr Phe Phe Cys Phe Phe Ile Ile Ser Glu Cys
 100 105 110
 Tyr Val Leu Val Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125
 Pro Leu Leu Tyr Asn Thr Ala Met Ser Pro Arg Val Cys Ser Tyr Leu
 130 135 140
 Met Leu Gly Thr Tyr Leu Met Gly Phe Phe Asp Ala Met Ile His Thr
 145 150 155 160
 Gly Cys Met Leu Arg Leu Ser Phe Cys Asp Gly Asn Ile Ile Asn His
 165 170 175
 Tyr Phe Cys Asp Val Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
 180 185 190
 Tyr Val Asn Glu Thr Glu Ile Phe Ile Val Gly Gly Lys Asp Ile Ile
 195 200 205
 Leu Pro Ser Ala Ile Ile Phe Phe Ser Tyr Gly Phe Ile Leu Ser Asn
 210 215 220
 Ile Phe Gln Ile Arg Ser Thr Leu Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240
 Cys Ser Ser His Ile Ile Ala Val Ser Leu Phe Phe Gly Ser Cys Gly
 245 250 255
 Phe Met Tyr Leu Lys Pro Ser Ser Ala Val Ser Ile Asp Gln Gly Lys
 260 265 270
 Ile Ser Ser Ile Phe Tyr Thr Ile Val Val Pro Met Met Asn Pro Leu
 275 280 285
 Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Arg Lys Thr
 290 295 300
 Leu Ser Arg Arg Lys Phe Leu Lys Val
 305 310

<210> 89
 <211> 943
 <212> DNA
 <213> Homo sapiens

<400> 89
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 gggaatttg actttaatta ttctcatcgt gctgaattct caccttcata cccctatgta 180
 tttttttctt tttaacttgt cctttgtgga cttttgttac tcttctgtaa ttataccaaa 240
 aatgctgatg aactttattc taaagaaaaa ttttatctcc tatgtgggtt gtatgactca 300
 gttctactta tttggtttct gtgtcatttt ggagtgttat attctcacat caatggccta 360
 tgatcgttat gtggctatct gcaatccact cttgtataac attgtcatgt ctccgaagat 420
 gtgttcctat ctcatgcttg gttcatatth gatgggggtt tctgggtgcta tgatccacac 480
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 aattgtagca gggaaggata tcattgtgcc cactgtgatc atctttatct catatggctt 660
 catcctttcc agcataattc aaatgaaatc cactaagggc atgtcaaagg ccttcagcac 720
 ctgtagttcc cacataattg ctgtctctct gttctttgga tctgggtgcat ttatgtatct 780
 taaacccaac tcaactggaa caatgaacaa tggaaagata ccttcaataa tttataccat 840
 cttaattcct atgatgaatc cattaattta tagcttgaga aacaaagatg ttaaagttgc 900
 cttgagaaaa actttgagaa agaaaatctt gtaatcagaa act 943

<210> 90
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 90
 Met Ala Leu Ile Asn Gly Ser Val Val Thr Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Leu Thr Asp Gln Pro Asp Leu Gln Val Pro Leu Phe Leu Val Phe Leu
 20 25 30
 Leu Met Tyr Met Ile Thr Ala Leu Gly Asn Leu Thr Leu Ile Ile Leu
 35 40 45
 Ile Val Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe
 50 55 60
 Asn Leu Ser Phe Val Asp Phe Cys Tyr Ser Ser Val Ile Ile Pro Lys
 65 70 75 80
 Met Leu Met Asn Phe Ile Leu Lys Lys Asn Phe Ile Ser Tyr Val Gly
 85 90 95

Cys Met Thr Gln Phe Tyr Leu Phe Gly Phe Cys Val Ile Leu Glu Cys
100 105 110

Tyr Ile Leu Thr Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
115 120 125

Pro Leu Leu Tyr Asn Ile Val Met Ser Pro Lys Met Cys Ser Tyr Leu
130 135 140

Met Leu Gly Ser Tyr Leu Met Gly Phe Ser Gly Ala Met Ile His Thr
145 150 155 160

Gly Cys Val Leu Arg Leu Ser Phe Cys Asp Gly Asn Ile Ile Asn His
165 170 175

Tyr Phe Cys Asp Leu Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
180 185 190

Tyr Val Asn Glu Ile Glu Val Leu Ile Val Ala Gly Lys Asp Ile Ile
195 200 205

Val Pro Thr Val Ile Ile Phe Ile Ser Tyr Gly Phe Ile Leu Ser Ser
210 215 220

Ile Phe Gln Met Lys Ser Thr Lys Gly Met Ser Lys Ala Phe Ser Thr
225 230 235 240

Cys Ser Ser His Ile Ile Ala Val Ser Leu Phe Phe Gly Ser Gly Ala
245 250 255

Phe Met Tyr Leu Lys Pro Asn Ser Thr Gly Thr Met Asn Asn Gly Lys
260 265 270

Ile Pro Ser Ile Ile Tyr Thr Ile Leu Ile Pro Met Met Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Arg Lys Thr
290 295 300

Leu Arg Lys Lys Ile Leu
305 310

<210> 91

<211> 981

<212> DNA

<213> Homo sapiens

<400> 91

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gaagaatggc tctggcaaat ggctcttttg taactgaatt cattctcttg ggcttaacag 60
accagcctga ctttcaaag cccctgttcc taatttttct aataatttat ttgataacag 120
catttggaat tttgacttta ataattttta ttgtgttgaa ttctcacctt cacacaccca 180
tgtacttttt cctctttaac ttatccttca tagatctttg ctattcttct ttgatcacac 240
ccaaaatgct gatgaacttt gtactagaga agaacattat ttcttacatg ggggtgatga 300
ctcagttcta cttctttggc ttttttgcca tttctgaatg ttatgtgctg acagcaatgg 360
cctatgatcg ctatgtggcc atttgtaatc cactcttgta tagtggttgc atgtctccaa 420
agatgtgttc ctattttatt cttgggttcatt atttcatggg attttcaggt gccatgatcc 480
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tgtttattgt aacaggaaaa gacatcattg tgcccaactgt gatcatcttt gcttcttatg 660
gctttatcct ctccaatatc ctcaaaaataa ggtccacttc aggcaggtcc aaagccttca 720
gcacttgacg ttccacata attgctgttt ctatgttctt tgggttcaagt gcatttatgt 780
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gcattgtggt acccatgatg aaccctctaa tctacagctt gaggaataaa gatgtcaaag 900
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<210> 92

<211> 316

<212> PRT

<213> Homo sapiens

<400> 92

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Met Ala Leu Ala Asn Gly Ser Phe Val Thr Glu Phe Ile Leu Leu Gly
  1              5              10              15

Leu Thr Asp Gln Pro Asp Leu Gln Met Pro Leu Phe Leu Ile Phe Leu
 20              25              30

Ile Ile Tyr Leu Ile Thr Ala Phe Gly Asn Leu Thr Leu Ile Ile Leu
 35              40              45

Ile Val Leu Asn Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Phe
 50              55              60

Asn Leu Ser Phe Ile Asp Leu Cys Tyr Ser Ser Leu Ile Thr Pro Lys
 65              70              75              80

Met Leu Met Asn Phe Val Leu Glu Lys Asn Ile Ile Ser Tyr Met Gly
      85              90              95

Cys Met Thr Gln Phe Tyr Phe Phe Gly Phe Phe Ala Ile Ser Glu Cys
 100              105              110
```

Tyr Val Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125

Pro Leu Leu Tyr Ser Val Ala Met Ser Pro Lys Met Cys Ser Tyr Phe
 130 135 140

Ile Leu Gly Ser Tyr Phe Met Gly Phe Ser Gly Ala Met Ile His Thr
 145 150 155 160

Gly Cys Val Met Arg Leu Thr Phe Cys Asp Gly Asn Thr Ile Asn His
 165 170 175

Tyr Phe Cys Asp Leu Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr
 180 185 190

Tyr Val Asn Glu Ile Glu Leu Phe Ile Val Thr Gly Lys Asp Ile Ile
 195 200 205

Val Pro Thr Val Ile Ile Phe Ala Ser Tyr Gly Phe Ile Leu Ser Asn
 210 215 220

Ile Leu Lys Ile Arg Ser Thr Ser Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240

Cys Ser Ser His Ile Ile Ala Val Ser Met Phe Phe Gly Ser Ser Ala
 245 250 255

Phe Met Tyr Leu Lys Pro Ser Ser Ala Val Ser Met Asn Glu Ala Lys
 260 265 270

Phe Ser Ser Ile Phe Tyr Ser Ile Val Val Pro Met Met Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Gly Leu Lys Lys Thr
 290 295 300

Leu Ser Arg Met Phe Ser His Asn Leu Ile Ser Leu
 305 310 315

<210> 93

<211> 969

<212> DNA

<213> Homo sapiens

<400> 93

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gttggaacc ttggcatgat tgtattgatt ctgattagtt ctcagctaca tacacctatg 180
tattatttac tcagcagtcct gtcctttatt gactgctgtc agtctactgt cattgttcct 240
aaaatgctgt tgaactttgt gacagagaag aatgtcatcc tgtaccaga atgcatagct 300
cagttctatt tcttctgtac tttgttggt gcagaatgtc acatgttggc tgcaatggca 360
tatgaccgct atgtggctat atctaaccct ttgctttaca aagtacccat gtcctatcaa 420
gtctgtttgt tgatggtagc tgtgggtgat ggtattggct taatcagtgc cacagctcac 480
acagtcttcc tgctaagatt gtttttctgt aaggctgata aaataaacca ctacttttgt 540
gatcttttcc cactacttga gctgtcttgc tctagtactt ttatcaatga aatattagca 600
ctgtccttca gtgcatttaa tattattgta ccagccatga ccatcattgg ctcttacatc 660
ttcatcatta tcagcatttt gcacattaaa tcctctgggg gcagagtcaa ggcctttaga 720
acctgcagct cccatatctt ggctgttgct attttctttg gttctacaac attcatgtat 780
ctacaacat cttcagtcag ctccatggac caagggaaag tgtcatctgt gttttatacc 840
attgttgtgc ctatgttgaa tcccatgatc tacagcctga gaaataaaga tgtcaaagtt 900
gccctaaaaa agttactaca aaagatgttt cctcaaaaca aggaatagat tttcttgga 960
attactgca 969

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<210> 94
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 94

Met	Glu	Glu	Leu	Asn	His	Thr	Ser	Val	Thr	Glu	Phe	Ile	Leu	Ala	Gly
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Leu	Thr	Glu	Asn	Pro	Glu	Leu	Gln	Leu	Pro	Leu	Phe	Leu	Thr	Phe	Leu
			20					25					30		
Ser	Val	Tyr	Leu	Phe	Thr	Val	Val	Gly	Asn	Leu	Gly	Met	Ile	Val	Leu
		35					40					45			
Ile	Leu	Ile	Ser	Ser	Gln	Leu	His	Thr	Pro	Met	Tyr	Tyr	Leu	Leu	Ser
	50					55					60				
Ser	Leu	Ser	Phe	Ile	Asp	Cys	Cys	Gln	Ser	Thr	Val	Ile	Val	Pro	Lys
65					70					75				80	
Met	Leu	Leu	Asn	Phe	Val	Thr	Glu	Lys	Asn	Val	Ile	Leu	Tyr	Pro	Glu
			85						90					95	
Cys	Ile	Ala	Gln	Phe	Tyr	Phe	Phe	Cys	Thr	Phe	Val	Val	Ala	Glu	Cys
		100						105					110		
His	Met	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Ser	Asn
	115						120					125			
Pro	Leu	Leu	Tyr	Lys	Val	Pro	Met	Ser	Tyr	Gln	Val	Cys	Leu	Leu	Met

130	135	140
Val Ala Val Val Tyr Gly Ile Gly Leu Ile Ser Ala Thr Ala His Thr		
145	150	155 160
Val Phe Leu Leu Arg Leu Phe Phe Cys Lys Ala Asp Lys Ile Asn His		
	165	170 175
Tyr Phe Cys Asp Leu Phe Pro Leu Leu Glu Leu Ser Cys Ser Ser Thr		
	180	185 190
Phe Ile Asn Glu Ile Leu Ala Leu Ser Phe Ser Ala Phe Asn Ile Ile		
	195	200 205
Val Pro Ala Met Thr Ile Ile Gly Ser Tyr Ile Phe Ile Ile Ile Ser		
	210	215 220
Ile Leu His Ile Lys Ser Ser Gly Gly Arg Val Lys Ala Phe Arg Thr		
225	230	235 240
Cys Ser Ser His Ile Leu Ala Val Ala Ile Phe Phe Gly Ser Thr Thr		
	245	250 255
Phe Met Tyr Leu Gln Pro Ser Ser Val Ser Ser Met Asp Gln Gly Lys		
	260	265 270
Val Ser Ser Val Phe Tyr Thr Ile Val Val Pro Met Leu Asn Pro Met		
	275	280 285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Val Ala Leu Lys Lys Leu		
290	295	300
Leu Gln Lys Met Phe Pro Gln Asn Lys Glu		
305	310	

<210> 95

<211> 945

<212> DNA

<213> Homo sapiens

<400> 95

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gacatgccag caggaaacca ttgcacagtg actgtgttct tcttagctgg gctctcagag 60
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tctgggaatc tgggcatgat tatactaatt gggctcagtt ccaacctgca cacacccatg 180
tactatttcc tcagcagttt gtccttcatt gactttggtc agtccacagt tgttaccctt 240
aaaatgctgg tgagctttct gacagagaag aacctcatca cctaccctga atgcttggct 300
cagctctact ttgccatcat ttttggcaca gcagagagct acacattagc tgcaatggca 360

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tatgaccgct atgttgccat ctgtaacccc ttggttttaca atatagccat gtcctctcag 420
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 atgggcttca tgttttaggat ccagttctgc aaatcagatg taatcaacca ctatttctgt 540
 gatttccttc cctctttgaa acttgcatgc tctaatacat atgtcagtga aatggtgatt 600
 ctattttttg gtacactgaa tatctttgtc ccaatgctga ccattattac ttcctacatc 660
 tccattatit ccagcatcct ccgcattagc tctagtgagg gcaggtccaa agcctttagt 720
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 ttacagccat cagcagtaag ttcaatagac caagggaaaag tgcctctgt gttttatacg 840
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 gcaatgaaga aaatacttga aaggaaaaga ttcagtgaag cagaa 945

<210> 96

<211> 311

<212> PRT

<213> Homo sapiens

<400> 96

Met Pro Ala Gly Asn His Cys Thr Val Thr Val Phe Phe Leu Ala Gly
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Leu Ser Glu Gln Ser Glu Leu Gln Leu Pro Leu Phe Leu Phe Phe Thr
 20 25 30

Gly Ile Tyr Leu Ile Thr Val Ser Gly Asn Leu Gly Met Ile Ile Leu
 35 40 45

Ile Gly Leu Ser Ser Asn Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60

Ser Leu Ser Phe Ile Asp Phe Gly Gln Ser Thr Val Val Thr Pro Lys
 65 70 75 80

Met Leu Val Ser Phe Leu Thr Glu Lys Asn Leu Ile Thr Tyr Pro Glu
 85 90 95

Cys Leu Ala Gln Leu Tyr Phe Ala Ile Ile Phe Gly Thr Ala Glu Ser
 100 105 110

Tyr Thr Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125

Pro Leu Val Tyr Asn Ile Ala Met Ser Ser Gln Ile Tyr Cys Ser Leu
 130 135 140

Ile Ser Gly Val Tyr Ile Phe Ala Val Phe Cys Ala Ser Val Asn Met
 145 150 155 160

Gly Phe Met Phe Arg Ile Gln Phe Cys Lys Ser Asp Val Ile Asn His
165 170 175

Tyr Phe Cys Asp Phe Leu Pro Leu Leu Lys Leu Ala Cys Ser Asn Thr
180 185 190

Tyr Val Ser Glu Met Leu Ile Leu Phe Phe Gly Thr Leu Asn Ile Phe
195 200 205

Val Pro Met Leu Thr Ile Ile Thr Ser Tyr Ile Ser Ile Ile Ser Ser
210 215 220

Ile Leu Arg Ile Ser Ser Ser Glu Gly Arg Ser Lys Ala Phe Ser Thr
225 230 235 240

Cys Ser Ser His Ile Ser Ala Val Ala Val Phe Tyr Gly Ser Thr Ala
245 250 255

Phe Val Tyr Leu Gln Pro Ser Arg Val Ser Ser Ile Asp Gln Gly Lys
260 265 270

Val Ser Ser Val Phe Tyr Thr Thr Val Val Pro Met Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Ser Val Ala Met Lys Lys Ile
290 295 300

Leu Glu Arg Lys Arg Phe Met
305 310

<210> 97

<211> 942

<212> DNA

<213> Homo sapiens

<400> 97

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ctggggaacc tgggcatgat catcctgata ctgctcagct cgtacctgca caccocctatg 180
tacttcttcc tcagtagtct gtccttcatt gacttctgcc aatctactgt cattacccca 240
aaaatgctgg tgaaatttgt gagggagaag aatgaaatct cctaccctga gtgcataact 300
caactttgct tctttgtcat ttttgctggt tcagaaagtt acatgctggc tgcaatggca 360
tatgatcgct atgttgccat ctgtagcccc ttactttaca gtagcatcat gtctcaacat 420
aagtgccttt ctctcgtttt aggagtttac attctaggca tagtttgtgc atcagctcat 480
gtaggatgta tatttaggat tgatttctgc aaatctgatt tgatcaacca ttatttctgt 540
gaccttattt ctattcttaa tctctcatgc tctaataatt ttgtgaatga tctcgtaatt 600
ctaattttta gtctaattaa taccattttc ccaaccctga ccacccctcag ttcttatgct 660

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ttcatcatta tcagcatcct acgcattaaa tccactgagg gaagatctaa agccttcagt 720
acctgcagct cccacatctc agctgttgct atcttttata tctctgctgg atttacgtat 780
ctgaacccat catcttccca ttcgatggat gaaggaaaag tgtcttctat attttacacc 840
atcattgttc ccatgctcaa cccctgatt tacagtctta ggaataagga cgtgaaaatt 900
gctctgaaga aaatgattga atgaagataa ttcttctgat aa 942

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<210> 98

<211> 307

<212> PRT

<213> Homo sapiens

<400> 98

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Asn Met Glu Lys Gly Asn Gln Ser Thr Val Asn Lys Phe Phe Leu Ser
  1              5              10              15

```

```

Gly Leu Thr Glu Gln Pro Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe
      20              25              30

```

```

Leu Gly Ile Tyr Leu Leu Thr Val Leu Gly Asn Leu Gly Met Ile Ile
      35              40              45

```

```

Leu Ile Leu Leu Ser Ser Tyr Leu His Thr Pro Met Tyr Phe Phe Leu
      50              55              60

```

```

Ser Ser Leu Ser Phe Ile Asp Phe Cys Gln Ser Thr Val Ile Thr Pro
      65              70              75              80

```

```

Lys Met Leu Val Lys Phe Val Arg Glu Lys Asn Glu Ile Ser Tyr Pro
      85              90              95

```

```

Glu Cys Ile Thr Gln Leu Cys Phe Phe Val Ile Phe Ala Val Ser Glu
      100              105              110

```

```

Ser Tyr Met Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
      115              120              125

```

```

Ser Pro Leu Leu Tyr Ser Ser Ile Met Ser Gln His Lys Cys Leu Ser
      130              135              140

```

```

Leu Val Leu Gly Val Tyr Ile Leu Gly Ile Val Cys Ala Ser Ala His
      145              150              155              160

```

```

Val Gly Cys Ile Phe Arg Ile Asp Phe Cys Lys Ser Asp Leu Ile Asn
      165              170              175

```

```

His Tyr Phe Cys Asp Leu Ile Ser Ile Leu Asn Leu Ser Cys Ser Asn
      180              185              190

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Ile Phe Val Asn Asp Leu Val Ile Leu Ile Phe Ser Leu Ile Asn Thr
195 200 205

Ile Phe Pro Thr Leu Thr Ile Leu Ser Ser Tyr Ala Phe Ile Ile Ile
210 215 220

Ser Ile Leu Arg Ile Lys Ser Thr Glu Gly Arg Ser Lys Ala Phe Ser
225 230 235 240

Thr Cys Ser Ser His Ile Ser Ala Val Ala Ile Phe Tyr Ile Ser Ala
245 250 255

Gly Phe Thr Tyr Leu Asn Pro Ser Ser Ser His Ser Met Asp Glu Gly
260 265 270

Lys Val Ser Ser Ile Phe Tyr Thr Ile Ile Val Pro Met Leu Asn Pro
275 280 285

Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Ile Ala Leu Lys Lys
290 295 300

Met Ile Glu
305

<210> 99
<211> 946
<212> DNA
<213> Homo sapiens

<400> 99
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tgaggaaactt gggcatgatc ctcttaataca acattagttc tcaacttcac tctccaatgt 180
attattttct cagtcactta tccttcattg acctctgcta ttcctctgtc attacaccaa 240
agatgttggt gaactttgta tgtgcaaaga acacaatctc ctttaaggag tgcattgactc 300
agctttatatt ctctctcctt ttagctatatt cagaaggcta cctgctgaca gccatggcct 360
atgaccgcta tgttgccatc tgtagccac tgctttataa cactgtaatg tcccacaagg 420
tctgttccat aatgatggct gtggtatact cactgggctt ctttggggct actgtccata 480
caaccogtat gacaatgttg tccttctgtg ggtctcatat tatcaggcac tatttttgtg 540
atattctacc tttgttgact ctgtcttgct caagtaccca tatcaacgaa gtactgctgt 600
ttattattgg tggagttaat accctagcac ctacactggc tgtcatcatc tcttatgctt 660
tcattctaac aagcattcct cgcattccgt ccaatgaagg acgttccaaa gcatttggca 720
cctgtagctc ccacattatg gctgtgggaa tcttcttttg atcaattact ttcattgtatt 780
tcaagccacc ttccagtaat aatatggaac aagagaagggt gtctctgtgt ttctacacca 840
cagtgatccc aatgctaaat cccctcatat acagtctgag gaacaaggat gtaaagactg 900
ctctgaaaaa gatggttggg agaaggcagt tctctgaca aattga 946

<210> 100
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 100

Met	Asn	His	Ser	Ser	Val	Thr	Asp	Phe	Ile	Leu	Glu	Gly	Leu	Thr	Lys
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Arg	Pro	Glu	Leu	Gln	Leu	Pro	Leu	Phe	Leu	Leu	Phe	Leu	Gly	Ile	His
		20						25					30		
Val	Ile	Thr	Val	Val	Gly	Asn	Leu	Gly	Met	Ile	Leu	Leu	Ile	Asn	Ile
		35					40					45			
Ser	Ser	Gln	Leu	His	Ser	Pro	Met	Tyr	Tyr	Phe	Leu	Ser	His	Leu	Ser
	50					55					60				
Phe	Ile	Asp	Leu	Cys	Tyr	Ser	Ser	Val	Ile	Thr	Pro	Lys	Met	Leu	Val
65				70					75						80
Asn	Phe	Val	Cys	Ala	Lys	Asn	Thr	Ile	Ser	Phe	Lys	Glu	Cys	Met	Thr
			85						90					95	
Gln	Leu	Tyr	Phe	Phe	Leu	Leu	Leu	Ala	Ile	Ser	Glu	Gly	Tyr	Leu	Leu
		100						105					110		
Thr	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Ser	Pro	Leu	Leu
		115					120					125			
Tyr	Asn	Thr	Val	Met	Ser	His	Lys	Val	Cys	Ser	Ile	Met	Met	Ala	Val
	130					135					140				
Val	Tyr	Ser	Leu	Gly	Phe	Phe	Gly	Ala	Thr	Val	His	Thr	Thr	Arg	Met
145					150					155					160
Thr	Met	Leu	Ser	Phe	Cys	Gly	Ser	His	Ile	Ile	Arg	His	Tyr	Phe	Cys
				165					170					175	
Asp	Ile	Leu	Pro	Leu	Leu	Thr	Leu	Ser	Cys	Ser	Ser	Thr	His	Ile	Asn
		180						185					190		
Glu	Val	Leu	Leu	Phe	Ile	Ile	Gly	Gly	Val	Asn	Thr	Leu	Ala	Pro	Thr
	195						200					205			
Leu	Ala	Val	Ile	Ile	Ser	Tyr	Ala	Phe	Ile	Leu	Thr	Ser	Ile	Leu	Arg

210 215 220
 Ile Arg Ser Asn Glu Gly Arg Ser Lys Ala Phe Gly Thr Cys Ser Ser
 225 230 235 240
 His Ile Met Ala Val Gly Ile Phe Phe Gly Ser Ile Thr Phe Met Tyr
 245 250 255
 Phe Lys Pro Pro Ser Ser Asn Asn Met Glu Gln Glu Lys Val Ser Ser
 260 265 270
 Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Leu Ile Tyr Ser
 275 280 285
 Leu Arg Asn Lys Asp Val Lys Thr Ala Leu Lys Lys Met Val Gly Arg
 290 295 300
 Arg Gln Leu Ser
 305

<210> 101
 <211> 995
 <212> DNA
 <213> Homo sapiens

<400> 101
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 gttggaacc ttggcatgat tgtattgatt ctgattagtt ctcagctaca tacacccatg 180
 tattatttac tcaggagcct gtcttttatt gactgttgtc aatccactgt cattattccc 240
 aaaatgctgt tgaactttgt gacagagatg aatatcatct cataaccaca atgcatagct 300
 cagttctact tcttctgtgc ttttgctggt tcagaatgtc acatgttggc tgcaatggca 360
 tatgaccgct atgtggctat atctaactct ttgctttata atgtaaccat gtcctatcaa 420
 gtctgttcgt tgatggtagc tgtgggtgat ggtattggct taatcagtgc cacagctcac 480
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 gatcttttcc cattactgga gctctcgtgc tctagtactt atattaatga agttctagca 600
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 ttcacatttg tcagtgttct ccacattcaa tccactggag gcagagtcaa ggcctttcgc 720
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 ctacagccat cttcagtcag ctccatggac caagggaaag tatcatcagt gttttatacc 840
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<210> 102
 <211> 315

<212> PRT

<213> Homo sapiens

<400> 102

Met Glu Glu Ile Asn Asp Thr Ser Val Ala Glu Phe Ile Leu Thr Gly
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Leu Thr Glu Asn Pro Glu Leu Gln Leu Pro Leu Phe Leu Ile Phe Leu
20 25 30

Ala Val Tyr Leu Val Thr Val Val Gly Asn Leu Gly Met Ile Val Leu
35 40 45

Ile Leu Ile Ser Ser Gln Leu His Thr Pro Met Tyr Tyr Leu Leu Arg
50 55 60

Ser Leu Ser Phe Ile Asp Cys Cys Gln Ser Thr Val Ile Ile Pro Lys
65 70 75 80

Met Leu Leu Asn Phe Val Thr Glu Met Asn Ile Ile Ser Tyr Pro Gln
85 90 95

Cys Ile Ala Gln Phe Tyr Phe Phe Cys Ala Phe Ala Val Ser Glu Cys
100 105 110

His Met Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Ser Asn
115 120 125

Pro Leu Leu Tyr Asn Val Thr Met Ser Tyr Gln Val Cys Ser Leu Met
130 135 140

Val Ala Val Val Tyr Gly Ile Gly Leu Ile Ser Ala Thr Ala His Thr
145 150 155 160

Val Phe Leu Leu Arg Val Leu Phe Cys Lys Ser Asp Ile Ile Asn His
165 170 175

Tyr Phe Cys Asp Leu Phe Pro Leu Leu Glu Leu Ser Cys Ser Ser Thr
180 185 190

Tyr Ile Asn Glu Val Leu Ala Leu Ser Phe Ser Ala Phe Asn Ile Ile
195 200 205

Val Pro Ala Leu Thr Ile Leu Ser Ser Tyr Ile Phe Ile Ile Val Ser
210 215 220

Val Leu His Ile Gln Ser Thr Gly Gly Arg Val Lys Ala Phe Arg Thr
225 230 235 240

Cys Ser Ser His Ile Met Ala Val Ala Ile Phe Phe Gly Ser Thr Val
245 250 255

Phe Met Tyr Leu Gln Pro Ser Ser Val Ser Ser Met Asp Gln Gly Lys
260 265 270

Val Ser Ser Val Phe Tyr Thr Ile Val Val Pro Met Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Arg Val Ser Leu Lys Lys Leu
290 295 300

Leu Gln Lys Ile Ser Phe Leu Lys Thr Lys Asn
305 310 315

<210> 103

<211> 928

<212> DNA

<213> Homo sapiens

<400> 103

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ggggaacctg ggcattgatcc tgcctcatcac agtcagtcca ctgctgcata ctccctatgta 180
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aatgctgggtg aactttcttg ggaagaaaaa tttgattgtc tactcagagt gcatggccca 300
gctctttttc tttgtgatct tcgtgggtggc tgagggctac ctgctgactg ccatggcata 360
tgatcgctat gtggccatct gtagaccatt gctgtataat gtgatcatgt cctccagact 420
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tgttcttccc ctccaaacc tctcctgctc tgacataaag ctgaatgagc ttcttctatt 600
catcattgca ggcttcaaca ccttgggtgcc cactctagct gttgccatct cttatgtctt 660
tattttctgc agcatccttc acatcaagtc atcaaagggc aggtccaaag cctttggaac 720
ctgcagctct catctcatgg ctgtggggat cttctttggg tctatcacct tcatgtat 780
caagcctcct tcaagtaact ctctggagca agagaagggtg tcttctgtgt tctataccac 840
agtgatcccc atgctgaacc cattaatata cagtttgagg aacaaagatg tgaagaaagc 900
attgggcaaa tgtctggcag ggagataa 928

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<210> 104

<211> 308

<212> PRT

<213> Homo sapiens

<400> 104

Met Gly Thr Gly Asn His Ser Val Thr Val Val Phe Val Leu Val Gly

1	5	10	15
Leu Thr Gln Gln Pro Glu Leu Leu Leu Pro Leu Phe Ile Leu Phe Leu	20	25	30
Gly Ile Tyr Val Val Thr Ala Val Gly Asn Leu Gly Met Ile Leu Leu	35	40	45
Ile Thr Val Ser Pro Leu Leu His Thr Pro Met Tyr Tyr Phe Leu Ser	50	55	60
Ser Leu Ser Cys Val Asp Leu Cys Tyr Ser Thr Val Ile Thr Pro Lys	65	70	75
Met Leu Val Asn Phe Leu Gly Lys Lys Asn Leu Ile Val Tyr Ser Glu	85	90	95
Cys Met Ala Gln Leu Phe Phe Phe Val Ile Phe Val Val Ala Glu Gly	100	105	110
Tyr Leu Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Arg	115	120	125
Pro Leu Leu Tyr Asn Val Ile Met Ser Ser Arg Leu Cys Ser Leu Leu	130	135	140
Val Leu Val Ala Phe Ile Leu Gly Phe Val Ser Ala Leu Ala His Thr	145	150	155
Ser Ala Met Met Asn Leu Ser Phe Cys Lys Ser His Val Ile Ser His	165	170	175
Tyr Phe Cys Asp Val Leu Pro Leu Leu Asn Leu Ser Cys Ser Asp Ile	180	185	190
Lys Leu Asn Glu Leu Leu Leu Phe Ile Ile Ala Gly Phe Asn Thr Leu	195	200	205
Val Pro Thr Leu Ala Val Ala Ile Ser Tyr Val Phe Ile Phe Cys Ser	210	215	220
Ile Leu His Ile Lys Ser Ser Lys Gly Arg Ser Lys Ala Phe Gly Thr	225	230	235
Cys Ser Ser His Leu Met Ala Val Gly Ile Phe Phe Gly Ser Ile Thr	245	250	255
Phe Met Tyr Phe Lys Pro Pro Ser Ser Asn Ser Leu Glu Gln Glu Lys			

[illegible]

Gly Ile Tyr Val Val Thr Ala Val Gly Asn Leu Gly Met Ile Leu Leu
 35 40 45
 Ile Thr Val Ser Pro Leu Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60
 Ser Leu Ser Phe Val Asp Leu Ser Tyr Ser Thr Val Ile Thr Pro Lys
 65 70 75 80
 Met Leu Val Asn Phe Leu Gly Lys Lys Asn Phe Ile Thr Tyr Ser Glu
 85 90 95
 Cys Met Ala Gln Phe Phe Phe Phe Ala Val Phe Val Val Thr Glu Gly
 100 105 110
 Tyr Leu Leu Thr Val Met Ala Tyr Asp His Tyr Val Ala Ile Cys Arg
 115 120 125
 Pro Leu Leu Tyr Asn Val Met Met Ser Ser Lys His Cys Leu Leu Leu
 130 135 140
 Val Leu Val Ala Phe Thr Leu Gly Leu Phe Ser Ala Val Val His Thr
 145 150 155 160
 Ser Ala Met Met Ser Leu Asn Phe Cys Lys Thr Tyr Ile Ile Ser His
 165 170 175
 Tyr Phe Cys Asp Ala Leu Pro Leu Leu Lys Leu Ser Cys Ser Asn Thr
 180 185 190
 His Leu Asn Glu Leu Leu Ile Phe Ile Ile Gly Gly Ile Asn Thr Leu
 195 200 205
 Val Pro Thr Leu Ala Val Ala Ile Ser Tyr Val Phe Ile Phe Cys Ser
 210 215 220
 Ile Arg His Ile Lys Ser Ser Lys Ser Arg Ser Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Ser Ser His Leu Met Ala Val Gly Ile Phe Phe Gly Ser Ile Thr
 245 250 255
 Phe Met Tyr Leu Lys Pro Ser Ser Ser Asn Ser Leu Glu Gln Glu Lys
 260 265 270
 Val Ser Ser Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Leu Gly Arg Phe
 290 295 300

Ser Val Arg Arg
 305

<210> 107
 <211> 959
 <212> DNA
 <213> Homo sapiens

<400> 107
 ggaattgaac atagcatatg gcaacaggaa actattgcat gttacctgag ttcattctga 60
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 atgtgggtcac tgtagtgggg aatttgggca tgattacact gattaagctc agttctcacc 180
 tgcatacccc catgtactat ttcctcagta gtttgtcctt tattgatctc tgccattcca 240
 ctgtcattac ccccaaaatg ttggtgaact ttgtgataga gaaaaacatc atttcctaca 300
 ctggatgcat ggctcagctc tatttctttc taatttttgc tattgcagag tgatcatatgt 360
 tagctgcaat ggcatatgat cgctatgttg ccactctgta ccccttgctt tacaatgtaa 420
 ccatgtccta tcagatttac acttccctga tctttggagt ctatattatt ggtgtgggtt 480
 gtgcatcagc tcacacaggc ttcattgatca gaatacagtt ttgtaactta gaggtgatca 540
 accactatct ctgtgatctt cttcccctgc tggagcttgc tcaactctagt acttatgtta 600
 atgaattggt agttttatgt tttggtacat ttaacattgt tgttccaacc atgactattc 660
 ttactttctta catcttcac attgccaaca tcttacgcat tcgttctact ggaggcagggt 720
 ccaaagcctt cagtacctgc agctcccaca tcttagctgt tgctgtgttc tttgggtctg 780
 ctgcattcat gtaccttcaa ccatcatcag tcagctccat ggaccaaggg aaagtgtcct 840
 ctgtgtttta taccattggt gttcccatgc tgaaccctt gatctatagt ctgaggaata 900
 aggatgtcag tgttgccctg aagaaaatac tagaaagaaa attattcatg taaactgaa 959

<210> 108
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 108
 Met Ala Thr Gly Asn Tyr Cys Met Leu Pro Glu Phe Ile Leu Thr Gly
 1 5 10 15
 Leu Ser Lys Lys Pro Gln Leu Gln Met Pro Leu Phe Leu Leu Phe Leu
 20 25 30
 Gly Ile Tyr Val Val Thr Val Val Gly Asn Leu Gly Met Ile Thr Leu
 35 40 45
 Ile Lys Leu Ser Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60

Ser Leu Ser Phe Ile Asp Leu Cys His Ser Thr Val Ile Thr Pro Lys
 65 70 75 80

Met Leu Val Asn Phe Val Ile Glu Lys Asn Ile Ile Ser Tyr Thr Gly
 85 90 95

Cys Met Ala Gln Leu Tyr Phe Phe Leu Ile Phe Ala Ile Ala Glu Cys
 100 105 110

His Met Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
 115 120 125

Pro Leu Leu Tyr Asn Val Thr Met Ser Tyr Gln Ile Tyr Thr Ser Leu
 130 135 140

Ile Phe Gly Val Tyr Ile Ile Gly Val Val Cys Ala Ser Ala His Thr
 145 150 155 160

Gly Phe Met Ile Arg Ile Gln Phe Cys Asn Leu Glu Val Ile Asn His
 165 170 175

Tyr Phe Cys Asp Leu Leu Pro Leu Leu Glu Leu Ala His Ser Ser Thr
 180 185 190

Tyr Val Asn Glu Leu Leu Val Leu Cys Phe Gly Thr Phe Asn Ile Val
 195 200 205

Val Pro Thr Met Thr Ile Leu Thr Ser Tyr Ile Phe Ile Ile Ala Asn
 210 215 220

Ile Leu Arg Ile Arg Ser Thr Gly Gly Arg Ser Lys Ala Phe Ser Thr
 225 230 235 240

Cys Ser Ser His Ile Leu Ala Val Ala Val Phe Phe Gly Ser Ala Ala
 245 250 255

Phe Met Tyr Leu Gln Pro Ser Ser Val Ser Ser Met Asp Gln Gly Lys
 260 265 270

Val Ser Ser Val Phe Tyr Thr Ile Val Val Pro Met Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Ser Val Ala Leu Lys Lys Ile
 290 295 300

Leu Glu Arg Lys Leu Phe Met
 305 310

<210> 109
 <211> 993
 <212> DNA
 <213> Homo sapiens

<400> 109
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 gtgtggagat catgctcttt gtctgtttt tgtctttcta catcttcacc ttagtgggga 120
 acttgctcat actttttgog attgtctcct ccagtcggct tcacactccc atgtacttct 180
 tctgtgccca gctgtcagtg tgtgatatat tttttccctc cgttagctct cccaagatgc 240
 tgtttctacct ctcaggaaat agcagagcca tctcctatac aggcgtgtgtt tgccagctct 300
 tctttctacca tttccttggc tgtactgaat gtttctata cacagtgatg gcttatgacc 360
 gctttattgc catatgcttc cctctaaggc actcaataat catgaaccac aaagtgtgtg 420
 ccatcatggc tgtggggaca tcattttttg gctgcattca ggctactttt ctgaccactc 480
 taaccttcca gttgccctat tgtggtccca atgaagtgga ttattacttc tgtgatatcc 540
 ctgtaatgct gaagctggct tgtgcagaca catcaaccct agagatgggtg ggtctcatca 600
 gtgtggggct gatgcccctc agctgcttcc tctcattct cacctcttac agcttcatcc 660
 tttgctccat tcttcagatc cgctctactg agggccggca tagagccttc tctacctgca 720
 gtgcccattct cactgccatt ctctggcct tcatgccagt agtcctcata tacctccagc 780
 ctactcccaa tccctggctt aatgcagcag ttcaagtctt gaataacctg gtgacacct 840
 tgctgaatcc tttgatctat agcctaagga ataaggaagt aaaatgttct ctaaagaaaa 900
 tgctacagca agggcctatt ctgtctaaaa agtgataaag gcttagattc taatacttta 960
 atactataac ttcttcaaaa acctttcctt tct 993

<210> 110
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 110
 Met Arg Asn Phe Ser Val Val Thr Gln Phe Ile Leu Leu Gly Ile Pro
 1 5 10 15
 His Thr Glu Gly Val Glu Ile Met Leu Phe Val Leu Phe Leu Ser Phe
 20 25 30
 Tyr Ile Phe Thr Leu Val Gly Asn Leu Leu Ile Leu Phe Ala Ile Val
 35 40 45
 Ser Ser Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Cys Gln Leu
 50 55 60
 Ser Val Cys Asp Ile Phe Phe Pro Ser Val Ser Ser Pro Lys Met Leu
 65 70 75 80

Phe	Tyr	Leu	Ser	Gly	Asn	Ser	Arg	Ala	Ile	Ser	Tyr	Thr	Gly	Cys	Val	85	90	95	
Cys	Gln	Leu	Phe	Phe	Tyr	His	Phe	Leu	Gly	Cys	Thr	Glu	Cys	Phe	Leu	100	105	110	
Tyr	Thr	Val	Met	Ala	Tyr	Asp	Arg	Phe	Ile	Ala	Ile	Cys	Phe	Pro	Leu	115	120	125	
Arg	Tyr	Ser	Ile	Ile	Met	Asn	His	Lys	Val	Cys	Ala	Ile	Met	Ala	Val	130	135	140	
Gly	Thr	Ser	Phe	Phe	Gly	Cys	Ile	Gln	Ala	Thr	Phe	Leu	Thr	Thr	Leu	145	150	155	160
Thr	Phe	Gln	Leu	Pro	Tyr	Cys	Gly	Pro	Asn	Glu	Val	Asp	Tyr	Tyr	Phe	165	170	175	
Cys	Asp	Ile	Pro	Val	Met	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	Ser	Thr	180	185	190	
Leu	Glu	Met	Val	Gly	Leu	Ile	Ser	Val	Gly	Leu	Met	Pro	Leu	Ser	Cys	195	200	205	
Phe	Leu	Leu	Ile	Leu	Thr	Ser	Tyr	Ser	Phe	Ile	Leu	Cys	Ser	Ile	Leu	210	215	220	
Gln	Ile	Arg	Ser	Thr	Glu	Gly	Arg	His	Arg	Ala	Phe	Ser	Thr	Cys	Ser	225	230	235	240
Ala	His	Leu	Thr	Ala	Ile	Leu	Leu	Ala	Phe	Met	Pro	Val	Val	Leu	Ile	245	250	255	
Tyr	Leu	Gln	Pro	Thr	Pro	Asn	Pro	Trp	Leu	Asn	Ala	Ala	Val	Gln	Val	260	265	270	
Leu	Asn	Asn	Leu	Val	Thr	Pro	Met	Leu	Asn	Pro	Leu	Ile	Tyr	Ser	Leu	275	280	285	
Arg	Asn	Lys	Glu	Val	Lys	Cys	Ser	Leu	Lys	Lys	Met	Leu	Gln	Gln	Gly	290	295	300	
Pro	Ile	Leu	Ser	Lys	Lys											305	310		

<210> 111

<211> 974

<212> DNA

<213> Homo sapiens

<400> 111

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gacatgacat caggaaacaa ctgcacagtg tctgaattct tcttggtggtg gctctcagag 60
gagccagaac tccagctgcc actcttcctg ctcttcacag gaatatatct aatcactgtg 120
gtagggaacc tgggcatgat cacactgatt gggatcagtt cccacctgca cacagccatg 180
tactttttcc tcagcagtct ctcttcatt gacttctgtc agtccacagt tgttaccct 240
aaaatgctgg tgagctttct gacggagaag aacatcatct cctaccttg atgcatggct 300
cagctctact tcttcatcat ttttggggct gcagagtgtc acacattagc tgcaatggca 360
tatgaccgct atgttgccat ctgtaaccct ttactttaca ctgtagtcat gtcctatcag 420
gtttacagtt ccttgatttc aggagtgtat atttatgctg tgttctgtgc atcagttcac 480
acaggggtcc tgacaaggat tcagttttgc aaattagatg tgatcaacca ctatttctgt 540
gatattcttc cctcttgaa gcttgcatgc tctaatacct atatcgatga aatgttgatt 600
ttattttttg gtacactgaa tatctttgct ccaacattga tcattattac ttcctacatc 660
ttcattattg caagcatctt ccacattcgc tccagggagg gcaggtccaa agccttcagc 720
acctgcagtt cacacatctc tgctgttgcc attttctatg gttctgtgc attcatgtac 780
ttacaaccat cagagtgaat ttogatggac caagggaaag tgcctctgt gttttacact 840
actgttgtag ccatgctgaa ccccttgatc tacagcctaa ggaataagga tgttacagtt 900
gcactgaaga aaatacttga aagaaagaat ttcatgtggt cagaagtcac ataaataata 960
tttcttagag gaaa 974
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<210> 112

<211> 316

<212> PRT

<213> Homo sapiens

<400> 112

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Met Thr Ser Gly Asn Asn Cys Thr Val Ser Glu Phe Phe Leu Ala Gly
  1              5              10              15

Leu Ser Glu Glu Pro Glu Leu Gln Leu Pro Leu Phe Leu Leu Phe Thr
      20              25              30

Gly Ile Tyr Leu Ile Thr Val Val Gly Asn Leu Gly Met Ile Thr Leu
      35              40              45

Ile Gly Ile Ser Ser His Leu His Thr Ala Met Tyr Phe Phe Leu Ser
      50              55              60

Ser Leu Ser Phe Ile Asp Phe Cys Gln Ser Thr Val Val Thr Pro Lys
      65              70              75              80

Met Leu Val Ser Phe Leu Thr Glu Lys Asn Ile Ile Ser Tyr Leu Gly
      85              90              95

Cys Met Ala Gln Leu Tyr Phe Phe Ile Ile Phe Gly Ala Ala Glu Cys
```


	100		105		110
Tyr Thr Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn					
	115		120		125
Pro Leu Leu Tyr Thr Val Val Met Ser Tyr Gln Val Tyr Ser Ser Leu					
	130		135		140
Ile Ser Gly Val Tyr Ile Tyr Ala Val Phe Cys Ala Ser Val His Thr					
	145		150		155
					160
Gly Val Leu Thr Arg Ile Gln Phe Cys Lys Leu Asp Val Ile Asn His					
			165		170
					175
Tyr Phe Cys Asp Ile Leu Pro Leu Leu Lys Leu Ala Cys Ser Asn Thr					
	180		185		190
Tyr Ile Asp Glu Met Leu Ile Leu Phe Phe Gly Thr Leu Asn Ile Phe					
	195		200		205
Ala Pro Thr Leu Ile Ile Ile Thr Ser Tyr Ile Phe Ile Ile Ala Ser					
	210		215		220
Ile Phe His Ile Arg Ser Arg Glu Gly Arg Ser Lys Ala Phe Ser Thr					
	225		230		235
					240
Cys Ser Ser His Ile Ser Ala Val Ala Ile Phe Tyr Gly Ser Ala Ala					
			245		250
					255
Phe Met Tyr Leu Gln Pro Ser Arg Val Asn Ser Met Asp Gln Gly Lys					
	260		265		270
Val Ser Ser Val Phe Tyr Thr Thr Val Val Pro Met Leu Asn Pro Leu					
	275		280		285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Thr Val Ala Leu Lys Lys Ile					
	290		295		300
Leu Glu Arg Lys Asn Phe Met Trp Ser Glu Val Thr					
	305		310		315

<210> 113

<211> 950

<212> DNA

<213> Homo sapiens

<400> 113

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gacatggcag ccggaaccca ctgcacagt actgagttct tcttagttgg gctctcagag 60
aagccagaat tccagctgcc cctcttcctc ctcttccttg gaatctatct aatcactgtg 120
acaggaaacg tgggcatgat cacactgatt gggccttagt cccacctgca ccccccatg 180
tactttttcg tcaggagtct gtccttcatt gacttctgtc agtccacagt tgttattcct 240
aaaatgctca tgagctttct gacagagaag aacatcattt cctactctgg atgcatgggt 300
cagctctact tcttcttcat atttggtatt gcagagtgtc acacgttagc tgcaatggcc 360
tatgaccgat atgttgctat ttgtaacccc ttgctttata atgtaaccat gtcctatcag 420
atttacaatt ctctgatttc ggggtcatat atttttgctg tggctctgtc atccttaatc 480
actggcttca tgtttaggat tcagttctgt aatttagatg tgattaacca ctatttctgt 540
gatcttcttc ccctcttgaa tcttgcatcc tctaataatct atatcaatga aatattgatt 600
ctagttattg ctacactgaa tgtctttatc ccagtgtatg ccattattac ttcctacatc 660
ttcattattg ccaccattct ctacattcac tccagtgtgg gcaagttcaa aggggttagt 720
acttgtagta cccacatctc tgctgttgtc atcttttatg gttcaggagc attcacatac 780
ttacagccct cattactgaa ttctatgggc caagcaaaag tgtcctctgt gttttgtact 840
acagttgtac ccatgctgaa ccccttcac tacagcctga ggaataagga tgtcagtttt 900
gcactgaaaa aaatatttga aagaaaaaaa ttcatgtaag cagaaatcat 950

```

<210> 114

<211> 311

<212> PRT

<213> Homo sapiens

<400> 114

```

Met Ala Ala Gly Asn His Cys Thr Val Thr Glu Phe Phe Leu Val Gly
  1              5              10              15

```

```

Leu Ser Glu Lys Pro Glu Phe Gln Leu Pro Leu Phe Leu Leu Phe Leu
      20              25              30

```

```

Gly Ile Tyr Leu Ile Thr Val Thr Gly Asn Val Gly Met Ile Thr Leu
      35              40              45

```

```

Ile Gly Leu Ser Ser His Leu His Thr Pro Met Tyr Phe Phe Val Arg
      50              55              60

```

```

Ser Leu Ser Phe Ile Asp Phe Cys Gln Ser Thr Val Val Ile Pro Lys
      65              70              75              80

```

```

Met Leu Met Ser Phe Leu Thr Glu Lys Asn Ile Ile Ser Tyr Ser Gly
      85              90              95

```

```

Cys Met Val Gln Leu Tyr Phe Phe Phe Ile Phe Gly Ile Ala Glu Cys
      100             105             110

```

```

Tyr Thr Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
      115             120             125

```

Pro Leu Leu Tyr Asn Val Thr Met Ser Tyr Gln Ile Tyr Asn Ser Leu
 130 135 140

Ile Ser Gly Ser Tyr Ile Phe Ala Val Val Cys Ser Ser Leu Ile Thr
 145 150 155 160

Gly Phe Met Phe Arg Ile Gln Phe Cys Asn Leu Asp Val Ile Asn His
 165 170 175

Tyr Phe Cys Asp Leu Leu Pro Leu Leu Asn Leu Ala Ser Ser Asn Ile
 180 185 190

Tyr Ile Asn Glu Ile Leu Ile Leu Val Ile Ala Thr Leu Asn Val Phe
 195 200 205

Ile Pro Val Met Thr Ile Ile Thr Ser Tyr Ile Phe Ile Ile Ala Thr
 210 215 220

Ile Leu Tyr Ile His Ser Ser Glu Gly Lys Phe Lys Gly Phe Ser Thr
 225 230 235 240

Cys Ser Thr His Ile Ser Ala Val Ala Ile Phe Tyr Gly Ser Gly Ala
 245 250 255

Phe Thr Tyr Leu Gln Pro Ser Leu Leu Asn Ser Met Gly Gln Ala Lys
 260 265 270

Val Ser Ser Val Phe Cys Thr Thr Val Val Pro Met Leu Asn Pro Phe
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Asp Val Ser Phe Ala Leu Lys Lys Ile
 290 295 300

Phe Glu Arg Lys Lys Phe Met
 305 310

<210> 115

<211> 962

<212> DNA

<213> Homo sapiens

<400> 115

atttgaatgg aggacatggc agcaggaaac cactgcacag tgactgagtt cttcttagct 60
 gggctctcag agaagccaga actccagctg ccactcttcc tgctcttcac aggaatctat 120
 ctgatcacca tggcagggaa cctgggcatg atcacactga ttggggctcag ttctcatctg 180
 cacacacca tgtactatct cctcagcagt ctgtccttca ttgacttctg tcagtctaca 240
 gttgtcattc ctaaaatgct cgtgagcttt ctgacagaga tgaacatcat ttcctactct 300

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gaatgcatgg ctcagctcta cttcttcctc acttttggtta ttgcagagtg ctacacatta 360
gctgcaatgg cctatgaccg atatgttgct atttgtaacc ccttgcttta caatgtaacc 420
atgtcctatc agatttacag ttctctgatt tcaggggtat atatttttgc tgtgatctgt 480
tcattccttta aacttggtt catgcttagg actcagttct gcaatttaga tgtgattaac 540
cactattttct gtgatcttct tcccctcttg aatcttgcac cctctaatac ctacatcaat 600
gaaatattga ttctattttt tgctacactg aattcatttg tcccagtgct gaccattatt 660
acttcctaca tcttcattat tgtcaccatc ctctccattc actccaggga gggcaagttc 720
aaagctttta gtacttgtag taccacatc tctgctgttg ctatcttcta tggttcaggt 780
gcattcacgt atttacagcc ctcatcactg aattctatgg gccaaagcaa agtgtcctct 840
gtgttttata ctactgttgt acccatgctg aacccttga tctacagcct gaggaataag 900
gatgtcagta ttgcactgaa aaaaatactt gaaagaaaaa aattcatgta agcagaaatc 960
at

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<210> 116

<211> 314

<212> PRT

<213> Homo sapiens

<400> 116

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Met Glu Asp Met Ala Ala Gly Asn His Cys Thr Val Thr Glu Phe Phe
  1              5              10              15

```

```

Leu Ala Gly Leu Ser Glu Lys Pro Glu Leu Gln Leu Pro Leu Phe Leu
      20              25              30

```

```

Leu Phe Thr Gly Ile Tyr Leu Ile Thr Met Ala Gly Asn Leu Gly Met
    35              40              45

```

```

Ile Thr Leu Ile Gly Leu Ser Ser His Leu His Thr Pro Met Tyr Tyr
    50              55              60

```

```

Phe Leu Ser Ser Leu Ser Phe Ile Asp Phe Cys Gln Ser Thr Val Val
    65              70              75              80

```

```

Ile Pro Lys Met Leu Val Ser Phe Leu Thr Glu Met Asn Ile Ile Ser
      85              90              95

```

```

Tyr Ser Glu Cys Met Ala Gln Leu Tyr Phe Phe Leu Thr Phe Gly Ile
    100             105             110

```

```

Ala Glu Cys Tyr Thr Leu Ala Ala Met Ala Tyr Asp Arg Tyr Val Ala
    115             120             125

```

```

Ile Cys Asn Pro Leu Leu Tyr Asn Val Thr Met Ser Tyr Gln Ile Tyr
    130             135             140

```

```

Ser Ser Leu Ile Ser Gly Val Tyr Ile Phe Ala Val Ile Cys Ser Ser

```

145		150		155		160
Phe Asn Thr Gly	Phe Met Leu Arg Thr Gln Phe Cys Asn Leu Asp Val					
	165		170		175	
Ile Asn His Tyr Phe Cys Asp Leu Leu Pro Leu Leu Asn Leu Ala Ser						
	180		185		190	
Ser Asn Thr Tyr Ile Asn Glu Ile Leu Ile Leu Phe Phe Ala Thr Leu						
	195		200		205	
Asn Ser Phe Val Pro Val Leu Thr Ile Ile Thr Ser Tyr Ile Phe Ile						
	210		215		220	
Ile Val Thr Ile Leu Ser Ile His Ser Arg Glu Gly Lys Phe Lys Ala						
225		230		235		240
Phe Ser Thr Cys Ser Thr His Ile Ser Ala Val Ala Ile Phe Tyr Gly						
	245		250		255	
Ser Gly Ala Phe Thr Tyr Leu Gln Pro Ser Ser Leu Asn Ser Met Gly						
	260		265		270	
Gln Ala Lys Val Ser Ser Val Phe Tyr Thr Thr Val Val Pro Met Leu						
	275		280		285	
Asn Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Val Ser Ile Ala Leu						
	290		295		300	
Lys Lys Ile Leu Glu Arg Lys Lys Phe Met						
305		310				

<210> 117

<211> 1036

<212> DNA

<213> Homo sapiens

<400> 117

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aacatggcag ctgcaaacca ttgcatagtg actgagttct tcttggctgg actctcagag 60
aatcaaaaag ttcagctgcc cctttttctc ctattttag tagcactgtg 120
gcaggaaacc tggggatgat tgcattgatt gggatcagtt ccacttgca cacacccatg 180
tactatttcc tcagcagtct gtccttcatt gacttctgtc agtctacagt tgttaccoc 240
aaaatgttgg tgagccttct gacaaagaag aacatcatct cctactctgg atgcatgggt 300
cagctctact tcttcatcag ttttggaaact gcagagtgtc acacattagc tgtaatggca 360
tatgaccgct atgttgccat ttgtaacccc ctacgttaca atgtaaccat gtcctatcag 420
atttacagtt ccttgatttc aggggtgtat atttatgctg tgttctgtgc atcagtaaac 480
accggcttta taattaggat tcagttctgc aagttaaag tgatcaacca ctatttctgt 540

```

```

gatcttcttc ccctgttgaa acttgcacgc tctaatacct atatcaatga aatattgatt 600
ctatctttttg gttcagtaaa catctgtgtc ccaatgctga ctgttattac ttcctacatc 660
ttcatcattg ccagcatcct ccgtattcgc tccagtgagg gcaagttcaa agccttcagt 720
acttgcagtt cccacatctc tgctgttgct atcttgtatg gttctactgc attcacatac 780
ttacagcctt catcagttag tttggtggac caagggaag tgtcctctgt gttttatact 840
actgttgtag ctatgctgaa cccattgac tacagcttga ggaataagga tgtcactctt 900
gcattgaaaa gaattcttga acaaaaaag ctttatgtaa gcagaagtcg tgtgaagatt 960
attaattact aacatattat tgctttactc cttcaggata agaattggagg acatgacagc 1020
aggaaacat tgcaca 1036

```

<210> 118

<211> 322

<212> PRT

<213> Homo sapiens

<400> 118

```

Met Ala Ala Ala Asn His Cys Ile Val Thr Glu Phe Phe Leu Ala Gly
  1             5             10             15

Leu Ser Glu Asn Gln Lys Val Gln Leu Pro Leu Phe Leu Leu Phe Val
          20             25             30

Ala Ile Tyr Leu Ile Thr Val Ala Gly Asn Leu Gly Met Ile Ala Leu
          35             40             45

Ile Gly Ile Ser Ser His Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
          50             55             60

Ser Leu Ser Phe Ile Asp Phe Cys Gln Ser Thr Val Val Thr Pro Lys
          65             70             75             80

Met Leu Val Ser Leu Leu Thr Lys Lys Asn Ile Ile Ser Tyr Ser Gly
          85             90             95

Cys Met Val Gln Leu Tyr Phe Phe Ile Ser Phe Gly Thr Ala Glu Cys
          100            105            110

Tyr Thr Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn
          115            120            125

Pro Leu Arg Tyr Asn Val Thr Met Ser Tyr Gln Ile Tyr Ser Ser Leu
          130            135            140

Ile Ser Gly Val Tyr Ile Tyr Ala Val Phe Cys Ala Ser Val Asn Thr
          145            150            155            160

Gly Phe Ile Ile Arg Ile Gln Phe Cys Lys Leu Asn Val Ile Asn His

```

	165		170		175
Tyr Phe Cys Asp Leu Leu Pro Leu Leu Lys Leu Ala Cys Ser Asn Thr					
	180		185		190
Tyr Ile Asn Glu Ile Leu Ile Leu Phe Phe Gly Ser Val Asn Ile Cys					
	195		200		205
Val Pro Met Leu Thr Val Ile Thr Ser Tyr Ile Phe Ile Ile Ala Ser					
	210		215		220
Ile Leu Arg Ile Arg Ser Ser Glu Gly Lys Phe Lys Ala Phe Ser Thr					
225		230		235	240
Cys Ser Ser His Ile Ser Ala Val Ala Ile Leu Tyr Gly Ser Thr Ala					
	245		250		255
Phe Thr Tyr Leu Gln Pro Ser Ser Val Ser Leu Val Asp Gln Gly Lys					
	260		265		270
Val Ser Ser Val Phe Tyr Thr Thr Val Val Pro Met Leu Asn Pro Leu					
	275		280		285
Ile Tyr Ser Leu Arg Asn Lys Asp Val Thr Leu Ala Leu Lys Arg Ile					
	290		295		300
Leu Glu Gln Lys Arg Leu Tyr Val Ser Arg Ser Arg Val Lys Ile Ile					
305		310		315	320
Asn Tyr					

<210> 119

<211> 964

<212> DNA

<213> Homo sapiens

<400> 119

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ctgattcatc cataaaccatg acaaaccaca ctatggtgac agaattcacc ttgctgggca 60
tccctgagac agagggcctg gaaaatgcc tgctttttct gttttcaaca atgtatgcct 120
gtgccctgct gggaaacttt ctcatcttta ctgcaatcac tacctcccca agactacaca 180
cacccatgta ctttttcttg ggaaacctct ccatctttga cttagggttc tgttccacta 240
cagctccaaa gatgttgtca tatctctcag gatggggtgg agggatctct tttcagggat 300
gtgttgtaca acacttcttc tatcattgtc tgggttgac attgtgtttc ttgtacacag 360
tgatggccta tgaccgcttt gttgccatat gcttcccttt gagatacaca atcatcatga 420
accacagagt atgctgtgtc ttggccacag ggacctggat gagggtgtgt gtgcatgcca 480
ccatcctaac ttccctcact ttccagttgc cctactgtgg cccagtgag gtgagttatt 540

```

```

acttctgtga catgcctgca gtgttactgc tagcctgtga agattcctct ctagcacaga 600
gggtaggttt cacaaatgtt ggtcttttat ctctcatttg tttctttctc attattgtat 660
cctacactcg aattgggatc tccatctcaa aaatccgctc aacagaaggc aggcagagag 720
cgttctccac ctgcagtgcc cacctcacag ccatcatgtg tgtctatgga cctgtcatcg 780
tcatctacct acagcccaac cctagtccat tgcttagtgc gattattcag attttgaca 840
atcttgtgac acccaccatc aaccattga tctacagcct gaggaacaag gatgtgaaag 900
cagccctgag gcatgtattt cttagaggt gtcttagcct ggaagtaaag gaaaacagct 960
aagt

```

<210> 120

<211> 314

<212> PRT

<213> Homo sapiens

<400> 120

```

Met Thr Asn His Thr Met Val Thr Glu Phe Thr Leu Leu Gly Ile Pro
  1                      5                      10                      15

```

```

Glu Thr Glu Gly Leu Glu Asn Ala Leu Leu Phe Leu Phe Ser Thr Met
      20                      25                      30

```

```

Tyr Ala Cys Ala Leu Leu Gly Asn Phe Leu Ile Leu Thr Ala Ile Thr
      35                      40                      45

```

```

Thr Ser Pro Arg Leu His Thr Pro Met Tyr Phe Phe Leu Gly Asn Leu
      50                      55                      60

```

```

Ser Ile Phe Asp Leu Gly Phe Cys Ser Thr Thr Ala Pro Lys Met Leu
      65                      70                      75                      80

```

```

Ser Tyr Leu Ser Gly Trp Gly Gly Gly Ile Ser Phe Gln Gly Cys Val
      85                      90                      95

```

```

Val Gln His Phe Phe Tyr His Cys Leu Gly Cys Thr Leu Cys Phe Leu
      100                      105                      110

```

```

Tyr Thr Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys Phe Pro Leu
      115                      120                      125

```

```

Arg Tyr Thr Ile Ile Met Asn His Arg Val Cys Cys Val Leu Ala Thr
      130                      135                      140

```

```

Gly Thr Trp Met Ser Gly Cys Val His Ala Thr Ile Leu Thr Ser Leu
      145                      150                      155                      160

```

```

Thr Phe Gln Leu Pro Tyr Cys Gly Pro Ser Glu Val Ser Tyr Tyr Phe
      165                      170                      175

```


Cys Asp Met Pro Ala Val Leu Leu Leu Ala Cys Glu Asp Ser Ser Leu
180 185 190

Ala Gln Arg Val Gly Phe Thr Asn Val Gly Leu Leu Ser Leu Ile Cys
195 200 205

Phe Phe Leu Ile Ile Val Ser Tyr Thr Arg Ile Gly Ile Ser Ile Ser
210 215 220

Lys Ile Arg Ser Thr Glu Gly Arg Gln Arg Ala Phe Ser Thr Cys Ser
225 230 235 240

Ala His Leu Thr Ala Ile Met Cys Val Tyr Gly Pro Val Ile Val Ile
245 250 255

Tyr Leu Gln Pro Asn Pro Ser Pro Leu Leu Ser Ala Ile Ile Gln Ile
260 265 270

Leu His Asn Leu Val Thr Pro Thr Ile Asn Pro Leu Ile Tyr Ser Leu
275 280 285

Arg Asn Lys Asp Val Lys Ala Ala Leu Arg His Val Phe Leu Lys Arg
290 295 300

Cys Leu Ser Leu Glu Val Asn Glu Asn Ser
305 310

<210> 121

<211> 940

<212> DNA

<213> Homo sapiens

<400> 121

aatggctgta ggaaattcct cttcagtga agaattttatt ctgctgggct tgacacaaga 60
gccagagctc cagctgccgc tcttctttct cttcttgga atctatgtgg tctctgtgat 120
ggggaacctg ggcttgattg ttctgattgt gttgaatcct cccctgcaca ccccatgta 180
ctactttctc ttcaaccttt ccttcacaga tctctgctac tccactgtca taacccccag 240
aatgctgggtg ggttttgtga agcagaacac catctctcat gcagagtgtg tgactcagct 300
ttttttcttc tgcttctttg ttattgatga atgctacatt ttgacagcaa tggcctatga 360
cagatatgct gccatctgta agccccctgct ttaccagggtc accatgtccc atcagggtctg 420
cctcttgatg acagtgggga tgtatgtgat ggggcttggt ggtgccatag cccacattgt 480
ttgcatgctg agactcacct tctgtgaagg ccacataatt aatcactaca tgtgtgacat 540
acccccctctc ctgaagctct cctgcacaag tacctacatc aatgagctgg tagttttcat 600
tggttggtgggt gtcaatgtga tagttcctac attgactatt tttattactt ataccttaat 660
cctttccaac atcctcagca tccattctgc agaaggtaga tcaaaagcct tcagtacctg 720
tggctcccat gtgatagctg tttctctttt ctttgagagct gcagccttca tgtatcttaa 780

```
gccttctagt gcatctgtgg atgaagagaa attatcaacc attttttata ccattgtggg 840
cccaatgttg aatcctttca tctatagcat aaggaataag gatgttcaca ttgcactgag 900
aaaaactttg aagaaaagta tgtttactta aatagaatct 940
```

<210> 122

<211> 309

<212> PRT

<213> Homo sapiens

<400> 122

```
Met Ala Val Gly Asn Ser Ser Ser Val Lys Glu Phe Ile Leu Leu Gly
  1             5             10             15
```

```
Leu Thr Gln Glu Pro Glu Leu Gln Leu Pro Leu Phe Phe Leu Phe Leu
          20             25             30
```

```
Gly Ile Tyr Val Val Ser Val Met Gly Asn Leu Gly Leu Ile Val Leu
          35             40             45
```

```
Ile Val Leu Asn Pro Pro Leu His Thr Pro Met Tyr Tyr Phe Leu Phe
          50             55             60
```

```
Asn Leu Ser Phe Thr Asp Leu Cys Tyr Ser Thr Val Ile Thr Pro Arg
          65             70             75             80
```

```
Met Leu Val Gly Phe Val Lys Gln Asn Thr Ile Ser His Ala Glu Cys
          85             90             95
```

```
Met Thr Gln Leu Phe Phe Phe Cys Phe Phe Val Ile Asp Glu Cys Tyr
          100            105            110
```

```
Ile Leu Thr Ala Met Ala Tyr Asp Arg Tyr Ala Ala Ile Cys Lys Pro
          115            120            125
```

```
Leu Leu Tyr Gln Val Thr Met Ser His Gln Val Cys Leu Leu Met Thr
          130            135            140
```

```
Val Gly Met Tyr Val Met Gly Leu Val Gly Ala Ile Ala His Ile Val
          145            150            155            160
```

```
Cys Met Leu Arg Leu Thr Phe Cys Glu Gly His Ile Ile Asn His Tyr
          165            170            175
```

```
Met Cys Asp Ile Pro Pro Leu Leu Lys Leu Ser Cys Thr Ser Thr Tyr
          180            185            190
```

```
Ile Asn Glu Leu Val Val Phe Ile Val Val Gly Val Asn Val Ile Val
```

195	200	205
Pro Thr Leu Thr Ile Phe Ile Thr Tyr Thr Leu Ile Leu Ser Asn Ile		
210	215	220
Leu Ser Ile His Ser Ala Glu Gly Arg Ser Lys Ala Phe Ser Thr Cys		
225	230	235 240
Gly Ser His Val Ile Ala Val Ser Leu Phe Phe Gly Ala Ala Ala Phe		
245	250	255
Met Tyr Leu Lys Pro Ser Ser Ala Ser Val Asp Glu Glu Lys Leu Ser		
260	265	270
Thr Ile Phe Tyr Thr Ile Val Gly Pro Met Leu Asn Pro Phe Ile Tyr		
275	280	285
Ser Ile Arg Asn Lys Asp Val His Ile Ala Leu Arg Lys Thr Leu Lys		
290	295	300
Lys Ser Met Phe Thr		
305		

<210> 123
 <211> 942
 <212> DNA
 <213> Homo sapiens

<400> 123
 aatatttttg aatggagaat gactcttctg tgactgagtt tgtttttatg ggattaacag 60
 aacaacctga gttacggctg cctttgtttt ttgtgttctt gctgaattat acagctaccg 120
 tgatgggaaa ttgagctta atggttctta tttgtctgaa ttcacacctt cacaacccca 180
 tgtacttttt cttgttcaat ttatccttgg ttgatttctg ttattcattt gtttgtaccc 240
 ctaaaatgct aatgggtttt gtttctgaaa aaagcatcat atcttataca ggatgcatga 300
 ctcagctatt ctttttctgc ttttttgta attctgagtg ttatgtgctg acagcaatgg 360
 cctatgatcg ttatgtggcc atctgtaagc cattggtata tgccatcctt atgtctcctc 420
 ggatgtgttc cctgctaata attgggtcct acttaatggg atttgcaagt gccatggctc 480
 atactggctg catgattagg ctcaagtttt gtgattcgaa catcatcaac cattacatgt 540
 gtgaaatatt cccctgctc cagctctcct gcagtagtac ctatgccaat gaacttgtga 600
 gctctcttat tgctgtata gttgtcattg tatctggctt tggtatctta atgtcatatg 660
 cttccatcct cttaaagtgt gttcagatgt catcagctac aggttgggtcc aaagccatgg 720
 gtacttgtgg ttcccatatc ataactgtta gtctattcta tggttctgga ctgcttactt 780
 atgtcaaacc agcatccgct gaatctgtag atcaggggaa atttttctca gtgttttata 840
 ctcttatggt tccatgctg aatcctctta ttacagctc caggaacaag gatgtcaaat 900
 attctaattg tactattttt actatttctc cttagacatg at 942

<210> 124

<211> 307

<212> PRT

<213> Homo sapiens

<400> 124

Met	Glu	Asn	Asp	Ser	Ser	Val	Thr	Glu	Phe	Val	Phe	Met	Gly	Leu	Thr
1				5					10					15	

Glu	Gln	Pro	Glu	Leu	Arg	Leu	Pro	Leu	Phe	Phe	Val	Phe	Leu	Leu	Asn
			20					25					30		

Tyr	Thr	Ala	Thr	Val	Met	Gly	Asn	Leu	Ser	Leu	Met	Val	Leu	Ile	Cys
		35					40					45			

Leu	Asn	Ser	His	Leu	His	Asn	Pro	Met	Tyr	Phe	Phe	Leu	Phe	Asn	Leu
	50					55					60				

Ser	Leu	Val	Asp	Phe	Cys	Tyr	Ser	Phe	Val	Cys	Thr	Pro	Lys	Met	Leu
65					70					75					80

Met	Gly	Phe	Val	Ser	Glu	Lys	Ser	Ile	Ile	Ser	Tyr	Thr	Gly	Cys	Met
				85					90					95	

Thr	Gln	Leu	Phe	Phe	Phe	Cys	Phe	Phe	Val	Asn	Ser	Glu	Cys	Tyr	Val
		100						105					110		

Leu	Thr	Ala	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu
		115					120					125			

Val	Tyr	Ala	Ile	Leu	Met	Ser	Pro	Arg	Met	Cys	Ser	Leu	Leu	Met	Ile
	130					135					140				

Gly	Ser	Tyr	Leu	Met	Gly	Phe	Ala	Ser	Ala	Met	Ala	His	Thr	Gly	Cys
145					150					155					160

Met	Ile	Arg	Leu	Lys	Phe	Cys	Asp	Ser	Asn	Ile	Ile	Asn	His	Tyr	Met
				165					170					175	

Cys	Glu	Ile	Phe	Pro	Leu	Leu	Gln	Leu	Ser	Cys	Ser	Ser	Thr	Tyr	Ala
			180					185						190	

Asn	Glu	Leu	Val	Ser	Ser	Leu	Ile	Ala	Cys	Ile	Val	Val	Ile	Val	Ser
		195					200					205			

Gly	Leu	Val	Ile	Leu	Met	Ser	Tyr	Ala	Ser	Ile	Leu	Leu	Asn	Val	Val
	210					215					220				

Gln Met Ser Ser Ala Thr Gly Trp Ser Lys Ala Met Gly Thr Cys Gly
 225 230 235 240
 Ser His Ile Ile Thr Val Ser Leu Phe Tyr Gly Ser Gly Leu Leu Thr
 245 250 255
 Tyr Val Lys Pro Ala Ser Ala Glu Ser Val Asp Gln Gly Lys Phe Phe
 260 265 270
 Ser Val Phe Tyr Thr Leu Met Val Pro Met Leu Asn Pro Leu Ile Tyr
 275 280 285
 Ser Leu Arg Asn Lys Asp Val Lys Tyr Ser Asn Val Thr Ile Phe Thr
 290 295 300
 Ile Leu Thr
 305

<210> 125
 <211> 934
 <212> DNA
 <213> Homo sapiens

<400> 125
 aatggctcca agaaatagct cctctgtgac tgaatttata cttgtgggat tttcaaacca 60
 accagctctc cagctgcctc tcttcttcgt cttcttaggt atctatgtgc tgactgttat 120
 aggcaatttg ggactgatca ccttaattgg gttgaattcc agtcttcata ctccaatgta 180
 ctttttcctc ttcaacttgt cctttataga tttctgttat tctgtgtgt tcacgccaaa 240
 aatggtgagt gattttgtct cagaaaacat tatctcctac atgggatgca tgactcaact 300
 gtttttcttc tgtttctttg tcaattctga atgctacgtg ctgggtgtcaa tggcctatga 360
 tcgctatgtg gccatttgca atcctctgct gtacacagtt accatgtctc ctcagggtctg 420
 cactctgctg atgttttggt catatgtgat agggtttgct ggagccatgg cccatactgg 480
 aagcatgctg acacttactt tctgtgattc caatatgata caccattatc tctgtgaagt 540
 tcttcccctt ttacagctct cctgcaccag tacctatgcc aacgagcttg tgttttttat 600
 tgttggttga gtagtcatca cagcatccag catcagcatc tttatctctt atgcattgat 660
 tctctccaac attcttaaga ttcttctgct tgaaggtaga tccaaagcct ttggcacatg 720
 tggttcccat gtagttgctg ttgctctggt ttttgggtca ggggcattca cctatttaac 780
 aacctctttc cctggttcaa tggaagaggg aagggttgct tcagtatttt ataccaatgt 840
 ggttcccatg cttaaccac tgatctatag tttgaggaat aaagacgtta aacttgccct 900
 aaataaaacc ttgaagagag tgctcttctg atga 934

<210> 126
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 126

Met Ala Pro Arg Asn Ser Ser Ser Val Thr Glu Phe Ile Leu Val Gly
1 5 10 15

Phe Ser Asn Gln Pro Ala Leu Gln Leu Pro Leu Phe Phe Val Phe Leu
20 25 30

Gly Ile Tyr Val Leu Thr Val Ile Gly Asn Leu Gly Leu Ile Thr Leu
35 40 45

Ile Gly Leu Asn Ser Ser Leu His Thr Pro Met Tyr Phe Phe Leu Phe
50 55 60

Asn Leu Ser Phe Ile Asp Phe Cys Tyr Ser Cys Val Phe Thr Pro Lys
65 70 75 80

Met Leu Ser Asp Phe Val Ser Glu Asn Ile Ile Ser Tyr Met Gly Cys
85 90 95

Met Thr Gln Leu Phe Phe Phe Cys Phe Phe Val Asn Ser Glu Cys Tyr
100 105 110

Val Leu Val Ser Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro
115 120 125

Leu Leu Tyr Thr Val Thr Met Ser Pro Gln Val Cys Thr Leu Leu Met
130 135 140

Phe Cys Ser Tyr Val Ile Gly Phe Ala Gly Ala Met Ala His Thr Gly
145 150 155 160

Ser Met Leu Thr Leu Thr Phe Cys Asp Ser Asn Met Ile His His Tyr
165 170 175

Leu Cys Glu Val Leu Pro Leu Leu Gln Leu Ser Cys Thr Ser Thr Tyr
180 185 190

Ala Asn Glu Leu Val Phe Phe Ile Val Val Gly Val Val Ile Thr Ala
195 200 205

Ser Ser Ile Ser Ile Phe Ile Ser Tyr Ala Leu Ile Leu Ser Asn Ile
210 215 220

Leu Lys Ile Pro Ser Ala Glu Gly Arg Ser Lys Ala Phe Gly Thr Cys
225 230 235 240

Gly Ser His Val Val Ala Val Ala Leu Phe Phe Gly Ser Gly Ala Phe
245 250 255

Thr Tyr Leu Thr Thr Ser Phe Pro Gly Ser Met Glu Glu Gly Arg Phe
 260 265 270

Ala Ser Val Phe Tyr Thr Asn Val Val Pro Met Leu Asn Pro Leu Ile
 275 280 285

Tyr Ser Leu Arg Asn Lys Asp Val Lys Leu Ala Leu Asn Lys Thr Leu
 290 295 300

Lys Arg Val Leu Phe
 305

<210> 127
 <211> 945
 <212> DNA
 <213> Homo sapiens

<400> 127
 actatggaaa atgattcttc tgtgtctgag tttattctta tgggactgac agaccaacct 60
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 aatttgagct taatgaatct catttgcccta aactcaaacc ttcacacccc catgtacttt 180
 ttcattctca acctgtcctt cattgacttc tgttattcaa tgggtctttac ccccaaaatg 240
 ctgatgggct ttgttgtaga gaagaacatc atctccttca gaggatgcat gactcagctg 300
 tttttcttct tattttttgt gaactctgag agttatgtgc tgacagcaat ggcctatgat 360
 cgctatgtgg ccatctgtca gccactgctc tacaagctg ttatgtcacc tggcatctgc 420
 tttctattga tattttgtac ttatttgatg gggcttggtta gtgccttatt ccatacaggt 480
 tttatgataa ggctcaactt ttgtgattct aatgttatca accactatat gtgtgatatc 540
 ttccctctct ttcggtctc ctgcagtagc acctatctca ctgagcttgt gagctctgct 600
 gtgggtgggta cagctattat cttatgttgc ctcatatct taatctctta tggatgatgc 660
 ctttacaata tcattcatat gtcacaggt aagggttggg ccaaagcctt gggcacttgt 720
 ggttctcaca ttataactgt tagcttggtc tatgtaactg ggatgcttgc ttatgtcaag 780
 ccatcatctg ctgagactgt gggacagggg aaaattttct cagtatttta cacttttttg 840
 gtgcccctgc tgaatcctct tatttacagc ctcagaaaca aggatgtcaa acttgctgtg 900
 aaaaaaacct ggaagagact cacatgttaa attacccatt caaac 945

<210> 128
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 128
 Met Glu Asn Asp Ser Ser Val Ser Glu Phe Ile Leu Met Gly Leu Thr
 1 5 10 15

Asp Gln Pro Glu Leu Gln Leu Pro Leu Phe Val Leu Phe Leu Val Asn

	275		280		285														
Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Leu	Ala	Val	Lys	Lys	Thr	Trp	Lys				
	290					295					300								
Arg	Leu	Thr	Cys																
305																			